

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 51, 72, 73, 74, 77, 78 and 96

[OAR-2003-0053; FRL-7667-1]

RIN 2060-AL76

**Supplemental Proposal for the Rule to Reduce Interstate
Transport of Fine Particulate Matter and Ozone (Clean Air
Interstate Rule)**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Supplemental Notice of Proposed Rulemaking.

SUMMARY: Today's action is a supplemental notice of proposed rulemaking (SNPR) to EPA's January 30, 2004 (69 FR 4566) notice of proposed rulemaking (NPR). The NPR requires certain States to submit State implementation plan (SIP) measures to ensure that emissions reductions are achieved as needed to mitigate transport of fine particulate matter (PM_{2.5}) and/or ozone pollution and its main precursors - emissions of sulfur dioxide (SO₂) and oxides of nitrogen (NO_x) - across State boundaries. Today's action includes proposed rule language and supplemental information for the

January 2004 proposal, consisting of further discussion on establishing State-level emissions budgets, proposed State reporting requirements and SIP approvability criteria, proposed model cap-and-trade rules, and a more thorough discussion of how this proposal interacts with existing Clean Air Act (CAA) programs and requirements.

The EPA intends to produce a final rule by the end of calendar year 2004.

DATES: Comments must be received on or before [**insert date 45 days from publication**]. A public hearing will be held on June 3, 2004 in Alexandria, Virginia. Please refer to SUPPLEMENTARY INFORMATION for additional information on the comment period and the public hearing.

ADDRESSES: Submit your comments, identified by Docket ID No. OAR-2003-0053, by one of the following methods:

- Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the on-line instructions for submitting comments.
- Agency Website: <http://www.epa.gov/edocket>. EDOCKET, EPA's electronic public docket and comment system, is EPA's preferred method for receiving comments. Follow the on-line instructions for submitting comments.
- E-mail: A-and-R-Docket@epa.gov
- Mail: Air Docket, Clean Air Interstate Rule,

Environmental Protection Agency, Mailcode: 6102T, 1200 Pennsylvania Ave., NW, Washington, DC 20460.

- Hand Delivery: EPA Docket Center, 1301 Constitution Avenue, NW, Room B108, Washington, DC. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. OAR-2003-0053. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <http://www.epa.gov/edocket>, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through EDOCKET, regulations.gov, or e-mail. The EPA EDOCKET and the Federal regulations.gov websites are "anonymous access" systems, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through EDOCKET or regulations.gov, your e-mail address will be automatically captured and included as part of the comment that is placed

in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit EDOCKET on-line or see the Federal Register of May 31, 2002 (67 FR 38102). For additional instructions on submitting comments, go to Unit I of the **SUPPLEMENTARY INFORMATION** section of this document.

Docket: All documents in the docket are listed in the EDOCKET index at <http://www.epa.gov/edocket>. Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in EDOCKET or in hard copy at the EPA Docket Center, EPA West, Room B102, 1301 Constitution Avenue, NW,

Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Air Docket is (202) 566-1742.

FOR FURTHER INFORMATION CONTACT: For general questions concerning today's action, please contact Scott Mathias, U.S. EPA, Office of Air Quality Planning and Standards, Air Quality Strategies and Standards Division, C539-01, Research Triangle Park, NC, 27711, telephone (919) 541-5310, e-mail at mathias.scott@epa.gov. For legal questions, please contact Howard J. Hoffman, U.S. EPA, Office of General Counsel, Mail Code 2344A, 1200 Pennsylvania Avenue, NW, Washington, DC, 20460, telephone (202) 564-5582, e-mail at hoffman.howard@epa.gov. For questions regarding air quality analyses, please contact Brian Timin, U.S. EPA, Office of Air Quality Planning and Standards, Emissions Modeling and Analysis Division, D243-01, Research Triangle Park, NC, 27711, telephone (919) 541-1850, e-mail at timin.brian@epa.gov. For questions regarding emissions reporting requirements, please contact Bill Kuykendal, U.S. EPA, Office of Air Quality Planning and Standards, Emissions Modeling and Analysis Division, Mail Code D205-01, Research Triangle Park, NC, 27711, telephone (919) 541-5372, e-mail

at kuykendal.bill@epa.gov. For questions regarding the model cap-and-trade programs, please contact Sam Waltzer, U.S. EPA, Office of Atmospheric Programs, Clean Air Markets Division, Mail Code 6204J, 1200 Pennsylvania Avenue, NW, Washington, DC, 20460, telephone (202) 343-9175, e-mail at waltzer.sam@epa.gov. For questions regarding analyses required by statutes and executive orders, please contact Linda Chappell, U.S. EPA, Office of Air Quality Planning and Standards, Air Quality Strategies and Standards Division, Mail Code C339-01, Research Triangle Park, NC, 27711, telephone (919) 541-2864, e-mail at chappell.linda@epa.gov.

SUPPLEMENTARY INFORMATION:

I. Additional Information on Submitting Comments

A. How Can I Help EPA Ensure That My Comments Are Reviewed Quickly?

To expedite review of your comments by Agency staff, you are encouraged to send a separate copy of your comments, in addition to the copy you submit to the official docket, to Douglas Solomon, U.S. EPA, Office of Air Quality Planning and Standards, Emissions Modeling and Analysis Division, Mail Code C304-01, Research Triangle Park, NC, 27711, telephone (919) 541-4132, e-mail iagrcomments@epa.gov.

B. What Should I Consider as I Prepare My Comments for EPA?

1. *Submitting CBI.* Do not submit this information to EPA

through EDOCKET, regulations.gov or e-mail. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD ROM that you mail to EPA, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. Send or deliver information identified as CBI only to the following address: Roberto Morales, U.S. EPA, Office of Air Quality Planning and Standards, Mail Code C404-02, Research Triangle Park, NC 27711, telephone (919) 541-0880, e-mail at morales.roberto@epa.gov, Attention Docket ID No. OAR-2003-0053.

2. *Tips for Preparing Your Comments.* When submitting comments, remember to:

- i. Identify the rulemaking by docket number and other identifying information (subject heading, Federal Register date and page number).
- ii. Follow directions - The agency may ask you to respond

to specific questions or organize comments by referencing a Code of Federal Regulations (CFR) part or section number.

- iii. Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.
- iv. Describe any assumptions and provide any technical information and/or data that you used.
- v. If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.
- vi. Provide specific examples to illustrate your concerns, and suggest alternatives.
- vii. Explain your views as clearly as possible, avoiding the use of profanity or personal threats.
- viii. Make sure to submit your comments by the comment period deadline identified.

II. Regulated Entities

This action does not propose to directly regulate emissions sources. Instead, it proposes to require States to revise their SIPs to include control measures to reduce emissions of NO_x and SO₂. The proposed emissions reductions requirements that would be assigned to the States are based on controls that are known to be highly cost effective for EGUs.

III. Website for Rulemaking Information

The EPA has also established a website for this rulemaking at <http://www.epa.gov/interstateairquality/> which will include the rulemaking actions and certain other related information that the public may find useful.

IV. Public Hearing

The EPA will hold a public hearing on today's proposal on June 3, 2004. The hearing will be held at the following location:

Holiday Inn Select
Old Town Alexandria
480 King Street
Alexandria, Virginia 22314
Telephone: (703) 549-6080

The public hearing will begin at 9 a.m. and continue until 5 p.m., or later if necessary depending on the number of speakers. Oral testimony will be limited to 5 minutes per commenter. The EPA encourages commenters to provide written versions of their oral testimonies either electronically (on computer disk or CD-ROM) or in paper copy. Verbatim transcripts and written statements will be included in the rulemaking docket. If you would like to present oral testimony at the hearing, please notify Joann Allman, U.S. EPA, Office of Air Quality Planning and Standards, C539-02, Research Triangle Park, NC 27711, telephone (919)541-1815, email allman.joann@epa.gov, by May 31, 2004. For updates

and additional information on the public hearing please check EPA's website for this rulemaking.

The public hearing will provide interested parties the opportunity to present data, views, or arguments concerning the proposed rule. The EPA may ask clarifying questions during the oral presentations, but will not respond to the presentations or comments at that time. Written statements and supporting information submitted during the comment period will be considered with the same weight as any oral comments and supporting information presented at a public hearing.

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I. Background

The EPA's January 30, 2004 proposal (69 FR 4566-4650)¹ proposed to find that emissions of SO₂ and NO_x from 28 States and D.C., and emissions of NO_x alone from 25 States and D.C., violate the provisions of CAA section 110(a)(2)(D) by contributing significantly to nonattainment downwind of, respectively, the annual PM_{2.5} and the 8-hour ozone national ambient air quality standards (NAAQS).

As a result, EPA proposed to require SIP revisions containing measures to ensure that necessary emissions reductions are achieved. The EPA proposed SIP submittal deadlines and other aspects of the SIP submittals. Further, the January 2004 proposal identified the appropriate NO_x and SO₂ emissions that each of the affected jurisdictions would be required to eliminate. The January 2004 proposal explained that the affected States could choose to control any sources they wish to achieve those emissions reductions,

¹ The EPA signed the January 30, 2004 proposal on December 17, 2003 and made it immediately available to the public on EPA's website at <http://www.epa.gov/interstateairquality>.

and generally discussed the methodologies for determining the appropriate amount of emissions reductions on a State-by-State basis. The January 2004 proposal further explained that the emissions reductions may most cost effectively be achieved by controls on electric generating units (EGUs), and, in particular, through regionwide cap-and-trade programs for EGUs. Accordingly, the January 2004 proposal indicated the methods for determining the allowable amounts of SO₂ and NO_x emissions from EGUs, and offered a sketch of the model cap-and-trade programs, which EPA would offer to administer, that States may choose to adopt.

This supplemental proposal fills in certain gaps in the January 2004 proposal and revises it or its supporting information in specific ways. This section of the SNPR provides background on this supplemental proposal and summarizes its contents.

Section II of the SNPR provides additional detail on establishing State emissions budgets (i.e., emissions reduction requirements) on which we are requesting comment.

Section III discusses the interaction of the January 2004 proposal with existing CAA programs and requirements. It includes discussion of specific SIP criteria and emissions reporting requirements. It also discusses the interactions of the Clean Air Interstate Rule (CAIR) with

the Acid Rain Program that also requires SO₂ and NO_x emissions reductions - and the NO_x SIP Call, which was a 1998 rulemaking that required States in the eastern U.S. to submit SIPs reducing NO_x emissions to eliminate adverse impacts on the 1-hour ozone NAAQS. Section III also discusses the implications of the CAIR for compliance with regional haze requirements. It also discusses Tribal issues in more detail than was contained in the January 2004 proposal.

Section IV provides significant additional details concerning the EPA's model cap-and-trade program for EGUs.

Section V includes clarifications to the January 2004 proposal with respect to preamble language that was unclear, incomplete, inadvertently omitted, or inadvertently incorrect.

Section VI addresses the required statutory and executive order reviews for this SNPR.

Section VII lists the sections of proposed regulatory language that are included in today's supplemental proposal. (The January 2004 proposal was not accompanied by proposed regulatory language).

Under CAA section 307(d)(1)(J), the procedural requirements of section 307(d) apply to this proposal. In addition, under section 307(d)(1)(U), the Administrator is

authorized to include any other actions as covered under section 307(d). The EPA is including the proposals in today's SNPR and in the January 2004 proposal under section 307(d)(1)(U). Therefore, section 307(d) applies to all components of the rulemaking of which this action is a component.

II. State-by-State Emissions Reductions Requirements and EGU Budgets

In the January 2004 proposal, EPA proposed methods for determining the SO₂ and NO_x emission reduction requirements or budgets for each affected State. Today, EPA proposes corrections to the proposals in the NPR. Additional details are included in a technical support document².

Also, in the January 2004 proposal, EPA proposed methods for determining regionwide budgets. Today, EPA is not proposing any revisions to this methodology. However, in this SNPR, EPA used updated heat input data to develop the regionwide NO_x budgets, yielding a slight difference.

The choice of method to impose State-by-State emissions reduction requirements makes little difference in terms of the overall cost of the regionwide SO₂ and NO_x reductions. Assuming that allowances can be freely traded, the

² See, "State Emission Budget Calculation Technical Support Document for the Proposed Clean Air Interstate Rule (May 2004)."

cap-and-trade framework would encourage least-cost compliance over the entire region, an outcome that does not depend on the relative levels of individual State budgets.

A. SO₂ Emissions Budgets

1. Approaches for Integrating SO₂ Title IV Program with CAIR

As described in the January 2004 proposal and other places in today's preamble, EPA is proposing to integrate the title IV Acid Rain SO₂ program with the trading program proposed in today's notice by requiring facilities to comply with this rule using title IV allowances at a greater retirement ratio than one allowance for every one ton of emissions. In the January 2004 proposal, EPA proposed that, to meet the 65 percent reduction required under Phase II (which begins in 2015), EPA could require an affected EGU to retire three 2015 and beyond allowances for every ton of SO₂ that it emits. However, this 3-to-1 ratio results in slightly more reductions than EPA has proposed are necessary to eliminate the significant contribution of an upwind State. This section of today's SNPR proposes two basic alternatives for addressing this issue.

Under the first alternative EPA solicits comment on requiring affected EGUs to retire vintage 2015 and beyond title IV allowances at a rate of 2.86-to-1 rather than 3-to-

1. This alternative effectively eliminates the difference between the proposed cap levels and the resulting reductions. The EPA solicits comment on the use of this retirement ratio and specifically on whether the use of a fractional retirement ratio (2.86-to-1 instead of 3-to-1) raises practical implementation concerns for States or affected EGUs or whether a fractional retirement ratio is preferable to the two-step process described below.

Alternatively, EPA proposes requiring the retirement of 2015 and beyond vintage allowances at a 3-to-1 ratio, and permitting States to convert these additional reductions into allowances in their rules. That is, the States would retain special "CAIR SO₂ allowances" equivalent to the difference between the 3-to-1 retirement ratio and the effective 2015 cap. Thus, an amount of allowances (assuming allowances would be retired at a 3-to-1 ratio) equivalent to three times the number that represents the margin of difference in the retirement ratio for 2015 would then be made available to States. Under this approach, these reserved allowances would be distributed to the States based on the same methodology used to distribute title IV allowances, and States would have flexibility to further distribute them however they deem appropriate. The States might choose, for example, to distribute them to EGUs using

the same methodology that had been used for distributing the original title IV allowances, or use them as a set-aside for new sources or for sources that did not receive title IV allowances originally, or they might distribute them as incentives for achieving other policy goals each State may have.

Some States may want to use these reserved allowances to create an incentive for additional local emission reductions that will be needed to bring all areas into attainment with the PM_{2.5} NAAQS. The EPA projects that the proposed CAIR, along with other Federal and State programs already in place, will bring most areas of the country into attainment with the PM_{2.5} NAAQS by 2015 without the need for additional local controls. These regional and national programs, however, are not designed to deal with all local pollution problems, and we expect that there will be a small number of areas that will need additional local emissions reductions to reach attainment. In such cases, States could use their reserved allowances to create an incentive for additional local reductions - perhaps by providing reserved allowances to affected EGUs based on their proposals for achieving additional reductions in areas that are projected to need further local emissions reductions to come into attainment with the PM_{2.5} NAAQS.

Mechanisms that States could use for allocating these reserved allowances could range from basic financial incentives to more aggressive and innovative approaches. In its simplest form, the EGUs could choose to complement or expand existing control measures, or perhaps fund new ones. Under the latter approach, a specific value could be applied to a ton of local emissions to be reduced depending on one or more specific criteria such as: the accuracy and technical validity of emissions monitoring used to characterize emissions or demonstrate compliance, seasonal timing or location of the reductions, population exposure, or other considerations.

For example, reducing PM_{2.5} from a sector in a nonattainment area might receive a greater allowance value than reductions from a sector that is downwind of the nonattainment area most of the year, due to the relative effectiveness of the measures at reducing population exposure and monitoring of PM_{2.5}. Another example could be one in which the EGUs receive allowances in exchange for reductions in other pollutants causing PM_{2.5}, based on using technically appropriate air quality models to demonstrate superior environmental results. Nevertheless, States would have discretion on whether and how to use any reserved allowances to achieve additional local emission reductions.

2. Proposed SO₂ State Emission Budget Methodology.

a. Overview. In this section, EPA discusses the methodology for apportioning regionwide SO₂ emissions reductions requirements or budgets to the individual States. In the January 2004 proposal we proposed State EGU SO₂ budgets based on each State's allowances under title IV of the CAA Amendments with specified retirement ratios. This continues to be EPA's proposal for determining State SO₂ budgets. In addition, we discussed an alternate method of relying on Title IV allowances that would provide for some EGU allowances that could be redistributed to account for changes to the electric generation sector since the title IV allocations were created (using a two-part budget methodology). In this SNPR, EPA identifies some problems with the two-part method as described in the January 2004 proposal, withdraws the January 2004 proposal on this point, and is re-proposing that all States use the same retirement ratios for Title IV allowances.

b. NPR discussion. The EPA discussed its proposed SO₂ emission budget methodology at length in the January 2004 proposal. In that discussion, EPA outlined the various reasons for tying the SO₂ requirements of the proposed CAIR to the title IV program. Without carefully integrating the CAIR and title IV programs, emissions may increase prior to

implementation of the CAIR and emissions may shift to outside the control region. In addition, because the regulated community has relied on the title IV program in the past, and is planning on continued reliance for the future, lack of integration could give rise to concerns about the stability of EPA's regulatory efforts and the accompanying allowance market.

Under the approach proposed for SO₂, the State budgets would be based on the initial allocation of allowances to individual sources established by title IV of the 1990 CAA Amendments. The budgets are shown in Table II-1, revised to correct a slight calculation error in the January 2004 proposal,³ as explained in the technical support document⁴.

³ As in the SO₂ State budgets included in the January 2004 proposal, these budgets include the 250,000 allowances in the Special Allowance Reserve, prorated to the individual States in proportion to the sum of the 2010 individual units allocations for the State.

⁴ See, "State Emission Budget Calculation Technical Support Document for the Proposed Clean Air Interstate Rule (May 2004)."

**Table II-1. 28-State and District of Columbia
Annual EGU SO₂ Budgets**

| State | 28-State SO ₂ Budget 2010 (tons) | 28-State SO ₂ Budget 2015 (tons) |
|------------------------------|--|--|
| Alabama | 157,582 | 110,307 |
| Arkansas | 48,702 | 34,091 |
| Delaware | 22,411 | 15,687 |
| District of Columbia | 708 | 495 |
| Florida | 253,450 | 177,415 |
| Georgia | 213,057 | 149,140 |
| Illinois | 192,671 | 134,869 |
| Indiana | 254,599 | 178,219 |
| Iowa | 64,095 | 44,866 |
| Kansas | 58,304 | 40,812 |
| Kentucky | 188,773 | 132,141 |
| Louisiana | 59,948 | 41,963 |
| Maryland | 70,697 | 49,488 |
| Massachusetts | 82,561 | 57,792 |
| Michigan | 178,605 | 125,024 |
| Minnesota | 49,987 | 34,991 |
| Mississippi | 33,763 | 23,634 |
| Missouri | 137,214 | 96,050 |
| New Jersey | 32,392 | 22,674 |
| New York | 135,139 | 94,597 |
| North Carolina | 137,342 | 96,139 |
| Ohio | 333,520 | 233,464 |
| Pennsylvania | 275,990 | 193,193 |
| South Carolina | 57,271 | 40,089 |
| Tennessee | 137,216 | 96,051 |
| Texas | 320,946 | 224,662 |
| Virginia | 63,478 | 44,435 |
| West Virginia | 215,881 | 151,117 |
| Wisconsin | 87,264 | 61,085 |
| Total Regional Budget | 3,863,566 | 2,704,490 |

Note: As explained in the proposed January 2004 proposal (69 FR 4618) the regionwide budgets for the years 2010-2014 are based on a 50 percent reduction from title IV allocations for all units in affected States. The regionwide budget for 2015 and beyond is based on a 65 percent reduction.

c. Problems with the methodology proposed in the NPR. In the Model Trading section of the January 2004 proposal, EPA proposed giving States the option of deciding whether to adopt a two-part budget approach, making available additional SO₂ allowances through the use of higher retirement ratios (69 FR 4620,4632). However, upon further

assessment, it has become evident that problems could arise if various States implemented this approach differently. Specifically, the level of the regional cap on SO₂ emissions could increase or decrease, depending on which individual States tightened the retirement ratios.

An example could best illustrate this point. Assume State A in the proposed CAIR region has a State SO₂ budget of 300,000 tons in 2010, reflecting a 50 percent reduction from its 600,000 2010 title IV SO₂ allowances. Assume also that State A decides to implement a 3-to-1 retirement ratio for its 600,000 title IV SO₂ allowances in 2010, but all other States in the proposed CAIR region continue requiring 2-to-1 retirement ratios. Assume further that EPA allocates State A additional CAIR allowances for 100,000 tons of emissions, which reflect the difference between State A's 3-to-1 retirement ratio (200,000 tons) and the overall 2-to-1 retirement ratio (300,000 tons). With one CAIR allowance equivalent to one title IV allowance, State A, with its 3-to-1 ratio, would thus receive 300,000 CAIR allowances. Assume that State A allocates all of these new CAIR allowances to its sources. To illustrate most vividly the problem that may result, assume the extreme case in which State A's emissions in 2010 approach zero (due to efficiencies in implementing controls or lower generation

levels) and therefore that its sources sell all their title IV allowances as well as its additional CAIR allowances to sources in other States. In this example, the total amount of State A's allowances (600,000 title IV allowance plus 300,000 CAIR allowances) would be available for complying with the 2-to-1 ratio required by the other States. Consequently, the additional CAIR allowances allocated by EPA would effectively raise the overall regional cap by 150,000 tons, reflecting the 300,000 CAIR allowances retired at a 2-to-1 ratio.

To illustrate how this same case could lead to the opposite problem of a lower regional cap, assume that State A's emissions were to remain very high or to increase, so that its sources purchase allowances from other States and then retire them at a 3-to-1 ratio in 2010. State A sources would have to purchase more allowances than the amount State A had redistributed as additional CAIR allowances. This would mean the total amount of allowances for 2010, and thus the total regional cap, would in effect be lower.

In fact, in these examples, in any year that State A's emissions are not exactly one-third of their title IV allocations, the level of the overall regional cap would be impacted. This lack of certainty about the cap is unacceptable for a cap-and-trade program, as it undermines

both the environmental certainty and economic stability of the program. Therefore, EPA is withdrawing the January 2004 proposal on this point and re-proposing that all States use the same retirement ratio.

3. SIP Approvability

In section III.A, EPA outlines the proposed SIP approvability criteria if EPA adopts a requirement to retire allowances at ratios of greater than 1-to-1. Specifically, (1) all States must use the same retirement ratios whether or not they participate in the trading program and whether or not they achieve all the required emissions reductions through controls on EGUs, (2) if a State does not require all of the emissions reductions through requirements on EGUs, they may create extra CAIR allowances which would be calculated by multiplying the reductions required from the other sources by the required retirement ratio for that given year, and 3) the overall reduction requirement for a State would be set at the difference between a State's 2010 title IV allowance allocations and the EPA-determined CAIR SO₂ State budgets for the two phases. Please note, as described in section IV, that if a State chooses to achieve emissions reductions from non-EGUs, then that State's EGUs may not participate in the EPA administered cap-and-trade program.

B. NO_x Emissions Budgets

1. Overview

In this section, EPA discusses the apportioning of proposed regionwide NO_x emission reduction requirements or budgets to the individual States. In the January 2004 proposal we proposed State EGU NO_x budgets based on each State's average share of recent historic heat input. In today's SNPR, we propose the same heat input based methodology, but we propose revised budgets based on more complete heat input data.

In addition to the proposed heat input based method, in this SNPR we also discuss a different approach suggested by commenters for apportioning regionwide NO_x budgets to the States. As discussed in section IV of this SNPR, we propose that States have the discretion in choosing a methodology to distribute allowances from their NO_x budgets to individual sources.

2. NO_x Emission Budget Methodology Proposed in the NPR

a. NPR discussion. In the January 2004 proposal, we proposed annual NO_x budgets for a 28-State (and D.C.) region based on each jurisdiction's average heat input - using heat input data from Acid Rain Program units - over the years 1999 through 2002. We summed the average heat input from each of the applicable jurisdictions to obtain a regional

total average annual heat input. Then, each State received a pro rata share of the regional NOx emissions budget based on the ratio of its average annual heat input to the regional total average annual heat input.

b. Today's revised proposal. In this SNPR, the use of average heat inputs is still our preferred approach. However, State budgets based on heat input data from Acid Rain Program units only would not reflect the heat input of non-Acid Rain units. For example, a State with a large number of non-Acid Rain units would not have the heat input from those units reflected in the percent of regional average annual heat input that the State's generation represents. Therefore, today EPA proposes to revise its determination of State NOx budgets by supplementing Acid Rain Program unit data with annual heat input data from the U.S. Energy Information Administration (EIA), for the non-Acid Rain unit data. Table II-2 contains the proposed revised annual State NOx budgets. Note that the Acid Rain Program data for 2002 has been updated since our analysis for the January 2004 proposal was completed and was included in the calculation of these budgets.

Table II-2. 28-States and District of Columbia Annual EGU NOx Budgets - Based on Heat Input

| State | State NOx Budget 2010 (tons) | State NOx Budget 2015 (tons) |
|------------------------------|---------------------------------|---------------------------------|
| Alabama | 67,422 | 56,185 |
| Arkansas | 24,919 | 20,765 |
| Delaware | 5,089 | 4,241 |
| District of Columbia | 215 | 179 |
| Florida | 115,503 | 96,253 |
| Georgia | 63,575 | 52,979 |
| Illinois | 73,622 | 61,352 |
| Indiana | 102,295 | 85,246 |
| Iowa | 30,458 | 25,381 |
| Kansas | 32,436 | 27,030 |
| Kentucky | 77,938 | 64,948 |
| Louisiana | 47,339 | 39,449 |
| Maryland | 26,607 | 22,173 |
| Massachusetts | 19,630 | 16,358 |
| Michigan | 60,212 | 50,177 |
| Minnesota | 29,303 | 24,420 |
| Mississippi | 21,932 | 18,277 |
| Missouri | 56,571 | 47,143 |
| New Jersey | 9,895 | 8,246 |
| New York | 52,503 | 43,753 |
| North Carolina | 55,763 | 46,469 |
| Ohio | 101,704 | 84,753 |
| Pennsylvania | 84,552 | 70,460 |
| South Carolina | 30,895 | 25,746 |
| Tennessee | 47,739 | 39,783 |
| Texas | 224,314 | 186,928 |
| Virginia | 31,087 | 25,906 |
| West Virginia | 68,235 | 56,863 |
| Wisconsin | 39,044 | 32,537 |
| Total Regional Budget | 1,600,799 | 1,333,999 |

Note: NOx control requirements for Connecticut were discussed in the January 2004 proposal.

Commenters have also suggested adjusting the heat input data for existing units used to determine State budgets by multiplying it by different factors, established regionwide based on fuel type. The factors would reflect the inherently higher emissions rate of coal-fired plants, and consequently the greater burden on coal plants to control emissions. In contrast to allocations based on historic

emissions, the factors would also not penalize coal-fired plants that have already installed pollution controls. States shares would be determined by the amount of State heat input, as adjusted, in proportion to the total regional heat input. The factors could be based on average historic emissions rates (in lbs/mmBtu) by fuel type (coal, gas, and oil) for the years 1999-2002.

The EPA also discussed in the January 2004 proposal a methodology used in the NOx SIP Call (67 FR 21868) that applied State-specific growth rates for heat input in setting State budgets. With a methodology similar to that used in the NOx SIP Call, annual NOx budgets would be set by using a base heat input data, then adjusting it by a calculated growth rate for each jurisdiction's annual EGU heat inputs. The EPA is not proposing to use this method for the CAIR because we believe that the other methods that we are proposing (or taking comment on) are more reasonable due to the inherent difficulties in predicting growth in heat input over a lengthy period, especially for jurisdictions that are only a part of a larger regional electric power dispatch region.

III. Integration with Clean Air Act Programs

This section details how the rules that States develop to meet the requirements of the proposed CAIR must be

structured to conform with CAA programs. It proposes: specific criteria that SIPs submitted to meet the requirements of the proposed CAIR must meet; emissions inventory reporting requirements; revisions to the title IV Acid Rain regulations to integrate them with the proposed CAIR emissions trading programs; requirements to ensure that requirements of the existing NOx SIP Call continue to be met; that BART-eligible EGUs in any State affected by CAIR may be exempted from BART if that State complies with the CAIR requirements through adoption of the CAIR cap-and-trade program for SO₂ and NO_x emissions. Finally, this section provides additional discussion on the implications of the CAIR for tribes.

A. SIP Criteria

1. Introduction

This section describes (1) the dates for submittal and implementation of the SIPs that we propose to require under the CAIR, and (2) the criteria we propose to use in determining completeness and approvability of such SIPs.

2. Schedule for Submission and Implementation of SIPs

a. SIP submission schedule. In the January 2004 proposal, EPA proposed that States must submit the SIP revisions required under the CAIR as expeditiously as practicable but no later than 18 months from the date of promulgation of the

final rule. The proposed regulatory text at the end of this SNPR, 40 CFR 51.123 (for NO_x emissions) and 40 CFR 51.124 (for SO₂ emissions), contains this proposed submittal date.

b. Implementation Schedule. In the January 2004 proposal, EPA proposed that States must implement the control measures in their CAIR SIP revisions by January 1, 2010. The proposed regulatory text at the end of this SNPR, 40 CFR 51.123 (for NO_x emissions) and 40 CFR 51.124 (for SO₂ emissions), contains this proposed implementation date.

i. Relationship to attainment dates. On April 15, 2004, the Administrator signed a rule to designate and classify areas under the 8-hour ozone NAAQS. (69 FR 23858, April 30, 2004). Under the CAA, all areas designated as nonattainment are required to come into attainment with the NAAQS "as expeditiously as practicable." In addition, specific maximum attainment dates apply to different areas depending on their classification. In the Eastern U.S., all 8-hour ozone areas are classified as subpart 1 areas, marginal areas, or moderate areas. For subpart 1 areas, the attainment date is no later than June 2009, although EPA can extend this date by up to five years based on certain statutory criteria. The attainment dates for marginal and moderate areas are June 2007 and June 2010, respectively. State implementation plans must achieve reductions required

for attainment by the beginning of the complete ozone season prior to the attainment date (e.g., the 2009 ozone season for moderate areas).

In response to the January 2004 proposal, some commenters have expressed concern that the CAIR compliance dates (January 1, 2010, for Phase I, and January 1, 2015, for Phase 2) come too late for Eastern States to meet their deadlines for coming into attainment with the 8-hour ozone NAAQS. In making ozone designations, however, EPA recognized that certain areas may find it difficult to adopt plans showing attainment by their initial attainment dates, and would choose to be reclassified to higher classifications with longer attainment dates. For example, an area reclassified to serious would have a June 2013 attainment deadline, and would be required to achieve reductions required for attainment by the 2012 ozone season. It is also possible that some subpart 1 areas will qualify for an extension and receive an attainment date later than June 2009. In addition, an area failing to attain on time can qualify for up to two one-year extensions if it meets statutory criteria. Therefore, CAIR implementation by the 2013 or 2014 ozone season could facilitate attainment by a serious area receiving one-year extensions.

Some commenters also asserted that a similar timing

issue arises for PM2.5. Assuming PM2.5 designations by the statutory deadline of December 2004, the PM2.5 attainment deadlines would be no later than early 2010, or no later than early 2015 for areas receiving a maximum 5-year extension. To influence whether an area attains by those dates, reductions would have to occur one to three years earlier. Because of the structure of the proposed program, which creates a strong financial incentive for early reductions, EPA projects substantial early reductions in SO2. Thus, although the Phase I cap does not come into place until 2010, the proposed program would achieve substantial reductions in SO2 emissions. In addition, the same opportunity for one-year extensions mentioned for ozone exists for PM2.5 areas.

In light of the discussion above, EPA requests comment on all aspects of the issues concerning the timing of the proposed CAIR compliance dates in relation to NAAQS attainment dates.

ii. Implementation date and beginning of calendar year. The EPA believes that it is most straightforward for EPA to develop and implement the requirements of the proposed CAIR, for sources to comply with the proposed CAIR, and to ensure the environmental effectiveness of the proposed CAIR, if the compliance date for sources is the beginning of a calendar

year (or for requirements that pertain only to ozone, at the beginning of the ozone season). There are several reasons for this approach. First, the proposed requirements for States are annual emissions reductions. Beginning the program at any point other than the start of a calendar year would require the development and implementation of different Federal requirements for the first year of the program.

Second, different State rules to meet these requirements would also be necessary for the first, partial year portion of a program. States would have to develop partial year allocations. Additionally, States would have to modify monitoring and reporting requirements to address partial year reporting. Further, for SO₂ emissions reductions requirements, because of the interactions with title IV (which is an annual program), provisions would be needed to address both the annual requirements of title IV and the partial year requirements of the CAIR.

For these administrative feasibility reasons, EPA proposes that the emissions reductions requirements begin at the start of the calendar year, and not at any other time during a calendar year. However, EPA solicits comment on the administrative feasibility issues of implementing these requirements on a partial year basis for the first year of

the program.

In particular, EPA solicits comment on the appropriate budget allocation method, and, to promote discussion, offers the following observations for both NO_x and SO₂ partial year budgets. For the NO_x EGU emissions budget, partial year allocation could be accomplished by pro-rating to account for the fact that the program would be implemented for less than a full year. The simplest method would be to pro-rate by the number of days that the program would be implemented. For example, if the program began on January 31, 2010, budgets would be pro-rated by the factor 335/365, where 335 equals the number of days in the year in which States will be required to comply with the program.

At least in theory, more complex methodologies could be developed to account for the fact that the amount of generation - and therefore the amount of NO_x emissions - varies throughout the year (e.g., in many areas, summer generation is higher due to air conditioning load; in other areas that are heavily dependent on hydro power, fossil-fuel generation can vary seasonally with availability of hydro power). However, because factors that affect peak generation vary by region, EPA believes it would be very difficult to develop a methodology that reasonably addresses these many variations. Therefore, we believe that the

simplest pro-rata methodology described above would be appropriate for a partial year allocation.

Budgets for SO₂ could be set in a similar way. A State's SO₂ budget could be pro-rated by the number of days that the program would be in place. Because of the interactions with title IV (an annual program), implementation of a partial year budget for SO₂ would be somewhat more complicated. For emissions from the first portion of the year in which the State was not required to comply with the CAIR, the Acid Rain sources would still be subject to the 1-to-1 retirement ratio required under title IV. For emissions from the second part of the year, all EGUs affected by the CAIR would be required to turn in allowances of that vintage year at a ratio of 2-to-1.

3. Completeness Determination

Any SIP submittal that is made with respect to the final CAIR requirements first would be determined to be either incomplete or complete. A finding of completeness means that EPA would proceed to review the submittal to determine whether it is approvable. It is not a determination that the submittal is approvable; rather, it means the submittal is administratively and technically sufficient for EPA to determine whether it meets the statutory and regulatory requirements for approval. Under

40 CFR 51.123 and 40 CFR 51.124 (the proposed new regulations for NO_x and SO₂ SIP requirements, respectively), a submittal, to be complete, must meet the criteria described in 40 CFR, part 51, appendix V, "Criteria for Determining the Completeness of Plan Submissions." These criteria apply generally to SIP submissions.

Under CAA section 110(k)(1) and section 1.2 of appendix V, EPA must notify States whether a submittal meets the requirements of appendix V within 60 days of, but no later than 6 months after, EPA's receipt of the submittal. If a completeness determination is not made within 6 months after submission, the submittal is deemed complete by operation of law. For rules submitted in response to the CAIR, EPA intends to make completeness determinations expeditiously. In addition, if a State fails to make any submission by the required submission date, EPA expects to make a finding of failure to submit within the same period that would apply to making a completeness determination had a SIP been submitted on time.

A finding of failure to submit or incompleteness triggers the requirement that EPA promulgate a Federal implementation plan (FIP) within 2 years of the date of the finding. In addition, if a complete SIP is submitted in a timely fashion but EPA disapproves it, the requirement to

promulgate a FIP within 2 years would be triggered by EPA's disapproval. The EPA's obligation to promulgate a FIP in either instance would terminate upon EPA's approval of a SIP as meeting the requirements of the CAIR.

4. Approvability Criteria

a. Introduction. The approvability criteria for CAIR SIP submissions appear in the proposed 40 CFR 51.123 (NO_x emissions reductions) and in the proposed 40 CFR 51.124 (SO₂ emissions reductions). Most of the criteria are substantially similar to those that currently apply to SIP submissions under CAA section 110 or part D (nonattainment). For example, each submission must describe the control measures that the State intends to employ, identify the enforcement methods for monitoring compliance and handling violations, and demonstrate that the State has legal authority to carry out its plan.

This part of the section III preamble explains additional approvability criteria specific to the CAIR that were proposed in the January 2004 proposal, or are being proposed in today's SNPR. As explained in the January 2004 proposal, EPA proposed that each affected State must submit SIP revisions containing control measures that assure a specified amount of NO_x and SO₂ emissions reductions by specified dates.

Although EPA determined the required amount of emissions reductions by identifying specified control levels for EGUs that are highly cost effective, EPA explained in the January 2004 proposal that States have flexibility in choosing the sources to control in order to achieve the required emissions reductions. As long as the State's emissions reductions requirements are met, a State may impose controls on EGUs only, on non-EGUs only, or on a combination of EGUs and non-EGUs. The EPA's proposed SIP approvability criteria are intended to provide as much certainty as possible that, whichever sources a State chooses to control, the controls will result in the required amount of emissions reductions.

In the January 2004 proposal, EPA proposed a "hybrid" approach for the mechanisms used to ensure emissions reductions from sources. This approach incorporates elements of an emissions "budget" approach (requiring an emissions cap on affected sources) and an "emissions reductions" approach (not requiring an emissions cap). In this hybrid approach, if States impose control measures on EGUs, they would be required to impose an emissions cap on all EGUs, which would effectively be an emissions budget. However, as stated in the January 2004 proposal, if States impose control measures on non-EGUs, they would be

encouraged but not required to impose an emissions cap on non-EGUs. In the January 2004 proposal, we requested comment on the issue of requiring States to impose caps on any source categories the State chooses to regulate.

Today, we propose to modify this hybrid approach so that States choosing to impose control measures on large industrial boilers and/or turbines must do so by imposing an emissions cap on all such sources within their State. This is similar to EPA's approach in the NO_x SIP Call which required States to include an emissions cap on such sources as well as on EGUs if the SIP submittals included controls on such sources. (See 40 CFR 51.121(f)(2)(ii), referenced at 63 FR 57494, October 27, 1998.)

Below, EPA describes specific criteria, depending on which sources States choose to control.

b. Requirements if States choose to control EGUs.

i. Emissions caps. As explained in the January 2004 proposal (69 FR 4626), EPA proposed that States must apply the "budget" approach if they choose to control EGUs; that is, States must cap EGU emissions at the level that assures the appropriate amount of reductions. These caps constitute the State EGU budgets for SO₂ and NO_x. Additionally, EPA proposed that, if States choose to control EGUs, they must require EGUs to follow part 75 monitoring, recordkeeping,

and reporting requirements.

If States choose to allow their EGUs to participate in EPA-administered interstate NO_x and SO₂ emissions trading programs, States must adopt EPA's model trading rules, as described in section IV below and as proposed in 40 CFR part 96, §96.101-§96.176 and §96.201-§96.276, below. States adopting EPA's model trading rules, with only those modifications specifically allowed by EPA, will meet the requirements for applying an emissions cap as well as part 75 monitoring, recordkeeping, and reporting requirements to EGUs.

If States choose to control EGUs but not to allow them to participate in EPA-administered NO_x and SO₂ emissions trading programs, States must still impose an emissions cap as well as part 75 monitoring, recordkeeping, and reporting requirements on all EGUs. Additionally, States must use the same definition of EGU as EPA uses in its model trading rules, i.e., the sources described as "CAIR units" in proposed 40 CFR 96.102 and 40 CFR 96.202. If a State chooses to design its own NO_x and SO₂ emissions trading programs, regardless of whether they are for intrastate or interstate trading, in addition to meeting the requirements of these rules, they should consider EPA's guidance, "Improving Air Quality with Economic Incentive Programs,"

January 2001 (EPA-452/R-01-001) (available on EPA's website at: <http://www.epa.gov/ttn/ecas/incentiv.html>), and the rules must be approved by EPA. It should be noted that EPA would not administer a State-designed program, so the State (or States) would need to administer such programs.

ii. Retirement Ratios. The January 2004 proposal required each State to assure that the title IV SO₂ allowances for vintage year 2010 and beyond for the State's EGUs that exceed the State's CAIR EGU SO₂ emissions budget cannot be used in a manner that would lead to emissions increases in areas not affected by the CAIR. Additionally, EPA was concerned that a devaluation of title IV allowances (because of the more stringent requirements of the CAIR) could lead to emissions increases prior to implementation of the CAIR. The EPA's concerns regarding these allowances are described in the January 2004 proposal at 69 FR 4630. To avoid these significant problems, the January 2004 proposal in effect would require the State to include a mechanism for retirement of the allowances in excess of the State's budget.

The number of retired allowances must be at least equal to the difference between the number of title IV allowances allocated to EGUs in a State and the SO₂ budget the State sets for EGUs under this rule. This requirement to retire

allowances in excess of a State's budget applies regardless of whether or not a State participates in the EPA-administered trading programs. If a State chooses to participate in the EPA-administered trading programs, the State must follow the provisions of the model trading rules, described in section IV below, that require that vintage 2010 through 2014 title IV allowances be retired at a ratio of 2 allowances for every ton of emissions and that vintage 2015 and beyond title IV allowances be retired at a ratio of three allowances for every ton of emissions. Pre-2010 vintage allowances would be retired at a ratio of one allowance for every ton of emissions. (See section IV.B.1 of this SNPR.)

In the January 2004 proposal, EPA stated that if a State does not choose to participate in the EPA-administered trading programs, the State may choose the specific method to retire allowances in excess of its budget. The EPA has further considered alternative ways for retiring these excess allowances and believes that if different States use different means to address this concern, it could undermine the regionwide emission reduction goals of the proposed CAIR. The EPA's concerns are further described in Section II of today's preamble. Because of these concerns, EPA is withdrawing the January 2004 proposal on this point and re-

proposing that all States use a 2-for-1 retirement ratio for vintage 2010 through 2014 allowances and a 3-for-1 retirement ratio for vintage 2015 allowances and beyond to address concerns about title IV allowances that exceed State budgets.

State rules may also allow sources currently subject to title IV and to the NOx SIP Call trading program to use allowances banked from those programs before 2010 for compliance with the CAIR, provided that States which participate in EPA's CAIR trading programs must allow this, in accordance with EPA's model trading rules. For further discussion of banking of NOx SIP Call allowances, see the January 2004 proposal (69 FR 4633).

c. Requirements if States choose to control sources other than EGUs

i. Overview of requirements. As noted in the January 2004 proposal, if a State chooses to require emissions reductions from non-EGUs, the State must adopt and submit SIP revisions and supporting documentation designed to quantify the amount of reductions from the non-EGU sources and to assure that the controls will achieve that amount. Although EPA did not propose that States be required to impose an emissions cap on those sources but instead solicited comment on the issue, EPA proposes today that States be required to impose an

emissions cap in certain cases on non-EGU sources.

If a State chooses to obtain some but not all of its required emissions reductions from non-EGUs, it would still be required to set an EGU SO₂ budget and/or an EGU NO_x budget, but at some level higher than shown in Tables VI-9 and VI-10 in the January 2004 proposal (69 FR 4619-4620), thus allowing more emissions from its EGUs. The difference between the amount of a State's SO₂ EGU budget in Table VI-9 and a State's selected higher EGU SO₂ budget would be the amount of SO₂ emissions reductions the State must demonstrate it will achieve from non-EGU sources. By the same token, the difference between the amount of a State's NO_x EGU budget in Table VI-10 and a State's selected higher EGU NO_x budget would be the amount of NO_x emissions reductions the State must demonstrate it will achieve from non-EGU sources.

If States require SO₂ emissions reductions from non-EGU sources, States should still use the same retirement ratio (i.e., 2-for-1 for vintage 2010 through 2014 allowances and 3-for-1 for vintage 2015 allowances and beyond) for title IV allowances. To account for the fact that the State is not requiring its EGUs to reduce as much, the State can allocate additional allowances. The number of these allowances will be calculated by multiplying the emissions reductions

required for the non-EGU source category by the title IV retirement ratio.

The demonstration of emissions reductions from non-EGUs is a critical requirement of the SIP revision due from a State that chooses to control non-EGUs. As noted in the January 2004 proposal, the State must take into account the amount of emissions attributable to the source category in both (i) the base case, in the implementation years 2010 and 2015, i.e., without assuming SIP-required reductions from that source category under the final CAIR, and (ii) in the control case, in the implementation years 2010 and 2015, i.e., with assuming SIP-required reductions from that source category under the CAIR SIP. We are proposing an alternative methodology for calculating the base case for certain large non-EGU sources, as described below, but generally the difference between emissions in the base case and emissions in the control case equals the amount of emissions reductions that can be claimed from application of the controls on non-EGUs. (See below for criteria applicable to development of the baseline and projected control emissions inventories.)

Additionally, if a State chooses to obtain some or all of its required emission reductions from non-EGUs, EGUs in that State could not participate in the EPA administered

multi-State trading programs.

ii. Eligibility of non-EGU reductions. In evaluating whether emissions reductions from non-EGUs would count towards the emissions reductions required under the CAIR, States may include only reductions attributable to measures that are not otherwise required under the CAA. This exclusion of credit is consistent with the NOx SIP Call. For the most part, the measures that are mandated by the CAA, and that EPA proposes be excluded from credit towards the emission reduction requirements of the CAIR, were assumed to be in place in the emissions projections and air quality contribution analysis used in the proposed findings regarding significant contribution to nonattainment in 2010.⁵

Specifically, States must exclude reductions attributable to measures otherwise required by the CAA, including: (1) measures already in place at the date of promulgation of the final CAIR, such as adopted State rules,

⁵ The 2010 emissions projections did not account for requirements for reasonably available control technology (RACT), reasonably available control measures (RACM), and vehicle inspection/maintenance in any new 8-hour ozone or PM2.5 nonattainment areas, as these areas had not been designated at the time of the modeling. However, we believe that not accounting for these requirements did not distort the proposed findings for each State because the aggregate reductions in NOx and SO2 emissions from these measures would be at most a small percentage of overall emissions.

SIP revisions approved by EPA, and settlement agreements; (2) measures adopted and implemented by EPA (or other Federal agencies) such as emissions reductions required pursuant to the Federal Motor Vehicle Control Program for mobile sources (vehicles or engines) or mobile source fuels, or pursuant to the requirements for National Emissions Standards for Hazardous Air Pollutants; and (3) specific measures that are mandated under the CAA (which may have been further defined by EPA rulemaking) based on the classification of an area which has been designated nonattainment for a NAAQS, such as vehicle inspection and maintenance programs. If a State can demonstrate that a new or modified measure is more stringent than what is required, e.g., due to broader geographic coverage or more stringent emissions reductions levels, the State may count toward the CAIR requirement the reductions attributable to the more stringent requirement. The exclusion of credit for ineligible measures is accomplished by including those measures in both the base and control cases, if they have already been adopted; or by excluding them from both the base and control cases if they have not yet been adopted.

States required to make CAIR SIP submittals may also be required to make other SIP submittals to meet other requirements applicable to non-EGUs, e.g., nonattainment

SIPs required for areas designated nonattainment under the PM_{2.5} or 8-hour ozone NAAQS. These SIPs could include, for example, measures to be adopted such as Reasonably Available Control Technology (RACT) measures pursuant to CAA section 182.

It is likely that CAIR SIP submittals will be due before or at the same time that some of these other SIP submittals are due. States relying on reductions from controls on non-EGUs must commit in the CAIR SIP revisions to replace the emissions reductions attributable to any CAIR SIP measure if that measure is subsequently determined to be required in meeting any other SIP requirement related to adoption of control measures. The State could make this replacement by decreasing its EGU emissions cap or a non-EGU emissions cap, if applicable, by the appropriate amount.

iii. Emissions controls and monitoring. As noted above, we are modifying the "hybrid" approach described in the January 2004 proposal as it applies to non-EGUs. For States that choose to impose controls on certain non-EGUs, namely large industrial boilers and turbines, i.e., those whose maximum design heat input is greater than 250 mmBtu/hr, to meet part or all of their emissions reductions requirements under the CAIR, EPA proposes that State requirements must include an emissions cap on all such sources in their State.

Additionally, EPA proposes that in this situation, States must require those large industrial boilers and turbines to meet part 75 requirements for monitoring and reporting emissions as well as recordkeeping. The EPA proposes that if a State chooses to control non-EGUs other than large industrial boilers and turbines to obtain the required emissions reductions, the States must either (i) impose the same requirements, i.e., an emissions cap on all the non-EGUs in the source category and Part 75 monitoring, reporting and recordkeeping requirements, or (ii) must demonstrate why such requirements are not practicable. In the latter case, the State must adopt appropriate alternative requirements to ensure to the maximum practicable degree that the required emissions reductions will be achieved. Further, if a State adopts alternative requirements that do not apply to all non-EGUs in a particular source category (defined to include all sources where any aspect of production is reasonably interchangeable), the State must demonstrate that it has analyzed the potential for shifts in production from the regulated sources to lesser regulated sources in the same State as well as in other States, and that the State is not including reductions attributable to sources that may shift emissions to such non-regulated or not as stringently

regulated sources.

iv. Emissions inventories and demonstrating reductions.

Quantifying emissions reductions attributable to controls on non-EGUs requires that the States submit both baseline and projected control emissions inventories for the applicable implementation years. We have issued many guidance documents and tools for preparing such emissions inventories, some of which apply to specific sectors States may choose to control. While much of that guidance is applicable to the proposed CAIR, there are some key differences between quantification of emission reduction requirements under a SIP designed to help achieve attainment with a NAAQS and emission reduction requirements under a SIP designed to reduce emissions that contribute to a downwind State's nonattainment problem. When addressing its own nonattainment problem, a State has an incentive not to overestimate emission reductions. If a State overestimates emission reductions, the potential consequence is that the State would remain out of attainment. Missing an attainment deadline has adverse impacts upon a State. Among other things, the area may be "bumped up" to a higher classification with more stringent requirements.

Under transport requirements, however, overestimating emission reductions has fewer intrastate consequences

(because it is the downwind State that would pay the price of remaining in nonattainment). For this reason, EPA believes that it is appropriate to have more stringent guidelines with respect to quantification of emission reductions under a program designed to reduce transported pollutants than are currently used with respect to SIPs addressing intrastate air pollution problems. We discuss below more stringent requirements both for developing baseline emission rates and for projecting future emission levels.

When we review CAIR SIPs for approvability, we intend to closely review the emissions inventory projections for non-EGUs to evaluate whether the emissions reductions estimates are correct. We intend to review the accuracy of baseline historical emissions for the subject sources, assumptions regarding activity and emissions growth between the baseline year and 2010 and 2015, and assumptions about the effectiveness of control measures.

To quantify non-EGU reductions, as the first step, a historical baseline must be established for emissions of SO₂ and/or NO_x from the non-EGU source(s) in a recent year. The historical baseline inventory should represent actual emissions from the substitute sources prior to the application of the emissions controls. We expect that

States will choose a representative year (or average of several years) falling between 2002 and 2005, inclusively, for this purpose.

The proposed requirements that follow for estimating the historical baseline inventory reflect EPA's belief that, when States assign emissions reductions to non-EGU sources, those reductions should have a high degree of certainty of actually being achieved similar to EGU reductions which can be quantified with a high degree of certainty in accordance with part 75 monitoring requirements that apply to EGUs. For non-EGU sources which are subject to part 75 monitoring requirements, historical baselines must be derived from actual emissions obtained from part 75 monitored data.

For non-EGU sources that do not have part 75 monitoring data to use as a baseline, a historical baseline must be established that estimates actual emissions in a way that matches or approaches as closely as possible the certainty provided by the part 75 measured data for EGUs. In the absence of part 75 measured data, EPA proposes that States be required to estimate historical baseline emissions using assumptions that ensure a source's or source category's actual emissions are not overestimated; source-specific or category-specific data are required. Because the substitute emissions reductions are estimated by subtracting controlled

emissions from a projected baseline, if the historical baseline overestimates actual emissions, the estimated reductions could be higher than the actual reductions achieved. As explained above, the use of historical baselines that do not overestimate emissions helps to ensure that upwind emissions reductions are actually achieved.

To achieve this baseline, States must use emission factors that ensure that emissions are not overestimated (e.g., emission factors at the low end of a range when EPA guidance presents a range) or the State must provide additional information that shows with reasonable confidence that another value is more appropriate for estimating actual emissions. Other monitoring or stack testing data can be considered but care must be taken not to overestimate baselines. If a production or utilization factor is part of the historical baseline emissions calculation, again, a factor that ensures that emissions are not overestimated must be used, or additional data must be provided. Similarly, if a control-efficiency factor and/or rule-effectiveness factor enters into the estimate of historical baseline emissions, it must be realistic and supported by facts or analysis. For these factors, a high value (closer to 100 percent control and effectiveness) ensures that emissions are not overestimated.

Once the historical baseline is established for SO₂ and/or NO_x emissions from the substitute sources, the second step is to project these emissions to conditions expected in 2010 and 2015. This step results in the 2010 and 2015 baseline emissions estimates. This step must be done with state-of-the-art methods for projecting the source's or source category's economic output. Economic and population forecasts must be as specific as possible to the applicable industry, State, and county of the source, and must be consistent with both national projections and relevant official planning assumptions including estimates of population and vehicle miles traveled developed through consultation between State and local transportation and air quality agencies. However, if these official planning assumptions are themselves inconsistent with official U.S. Census projections of population and energy consumption projections contained in the Annual Energy Outlook published by the U.S. Department of Energy, adjustments must be made to correct the inconsistency, or the SIP must demonstrate how the official planning assumptions are more accurate. Where changes in production method, materials, fuels, or efficiency are expected to occur between the baseline year and 2010 or 2015, these must be accounted for in the projected 2010 and 2015 baseline emissions. The projection

must also account for any adopted regulations that will affect source emissions, not including the measures adopted for purposes of meeting the requirements of the proposed CAIR and eligible for that purpose. (See discussion above regarding eligibility of reductions from non-EGU sources.)

The EPA is also proposing an alternative methodology for the use of projected 2010 and 2015 emissions. In this alternative, instead of using the projected 2010 and 2015 emissions as the 2010 and 2015 baselines, States must use the lower of historical baseline emissions for a source category or projected 2010 or 2015 emissions, as applicable, for a source category. This is because, as explained above, changes in production method, materials, fuels, or efficiency often play a key role in changes in emissions. Because of factors such as these, emissions can often stay the same or even decrease as productivity within a sector increases. These factors that contribute to emission decreases can be very difficult to quantify. Underestimating the impact of these types of factors can easily result in a projection for increased emissions within a sector, when a correct estimate would result in a projection for decreased emissions within the sector.

The third step is to develop the 2010 and 2015 controlled emissions estimates by assuming the same changes

in economic output and other factors listed above but adding the effects of the new regulations adopted for the purpose of meeting the CAIR. The regulations may take the form of emissions caps, emission rate limits, technology requirements, work practice requirements, etc. The State's estimate of the effect of the regulations must be realistic in light of the specific provisions for monitoring, reporting, and enforcement and experience with similar regulatory approaches. The State's analysis must examine the possibility that these new regulations may cause production and emissions to shift to non-regulated or less stringently regulated sources in the same State or another State. If all sources of an industrial or other type (where any aspect of production is reasonably interchangeable) within the State are regulated with the same stringency and compliance assurance provisions, the analysis of production and emissions shifts need only consider the possibility of shifts to other States. In estimating controlled emissions in 2010 and 2015, assumptions regarding ineligible control measures must be the same as in the 2010 baseline estimates. For example, if a federally adopted and implemented measure for the source type is assumed in one estimate, it must be assumed in the other.

Thus, EPA proposes two alternative methodologies for

calculating the 2010 and 2015 emissions reductions from non-EGUs which can be counted toward satisfying the CAIR. In the first alternative, the 2010 and 2015 emissions reductions which can be counted toward satisfying the CAIR are the differences between (i) for 2010, the 2010 baseline emissions estimates and the 2010 controlled emissions estimates, and (ii) for 2015, the 2015 baseline emissions estimates and the 2015 controlled emissions estimates, minus in each case any emissions that may shift to other sources rather than be eliminated.

In the second alternative, the 2010 and 2015 emissions reductions which can be counted toward satisfying the CAIR are the differences between (i) for 2010, the lower of historical baseline or 2010 baseline emissions estimates and the 2010 controlled emissions estimates, and (ii) for 2015, the lower of historical baseline or 2015 baseline emissions estimates and the 2015 controlled emissions estimates, minus in each case any emissions that may shift to other sources rather than be eliminated.

v. Controls on non-EGUs only. In the January 2004 proposal, we stated that we believe it is unlikely States will choose to control only non-EGUs, but we also said we would propose in this SNPR provisions for determining the specified emissions reductions that must be obtained if

States pursue this alternative. In this SNPR, EPA proposes that States choosing this path must ensure the amount of non-EGU reductions is greater than or equivalent to all of the emissions reductions that would have been required from EGUs had the State chosen to assign all the emissions reductions to EGUs, for example by participating in EPA-administered trading programs. For SO₂ emissions, this amount in 2010 would be 50 percent of a State's title IV SO₂ allocations for all affected sources in the State and, for 2015, 65 percent of that amount. For NO_x emissions, this amount would be the difference between a State's EGU budget for NO_x under the CAIR and its NO_x baseline EGU emissions inventory as projected in the Integrated Planning Model (IPM) for 2010 and 2015, respectively. The proposed rule text provides tables of these amounts for both SO₂ and NO_x.

In addition, EPA proposes that the same requirements described above (in section III.A.4.c of this preamble) regarding the eligibility of non-EGU reductions, emissions control and monitoring, emissions inventories and demonstrations of reductions, will apply to the situation where a State chooses to control only non-EGUs.

B. What Changes are EPA Proposing for Emissions Reporting Requirements?

1. Purpose and Authority

The EPA believes that it is essential that achievement of the emissions reductions required by the proposed CAIR be verified on a regular basis. Emissions reporting is the principal mechanism to verify these reductions and to assure the downwind affected States and EPA that the ozone and PM2.5 transport problems are being mitigated as required by the proposed CAIR. Also, EPA intends to reassess from time to time whether the requirements of the CAIR are effective in achieving the protections intended by CAA section 110(a)(2)(D)(i) for downwind PM2.5 and ozone nonattainment areas. To this end, EPA is proposing certain, limited new emissions reporting requirements for States. Proposed rule language for these requirements appears at the end of this SNPR. The rule language also would remove or simplify some current emissions reporting requirements which we believe are not necessary or appropriate, for reasons explained below.

Because we are proposing to consolidate and harmonize the new emissions reporting requirements proposed today with two pre-existing sets of emissions reporting requirements, we review here the purpose and authority for emissions reporting requirements in general.

Emissions inventories are critical for the efforts of State, local, and Federal agencies to attain and maintain

the NAAQS that EPA has established for criteria pollutants such as ozone, particulate matter (PM), and carbon monoxide (CO). Pursuant to its authority under sections 110 and 172 of the CAA, EPA has long required SIPs to provide for the submission by States to EPA of emissions inventories containing information regarding the emissions of criteria pollutants and their precursors (e.g., volatile organic compounds (VOC)). The EPA codified these requirements in subpart Q of 40 CFR part 51, in 1979 and amended them in 1987.

The 1990 Amendments to the CAA revised many of the provisions of the CAA related to the attainment of the NAAQS and the protection of visibility in Class I areas. These revisions established new periodic emissions inventory requirements applicable to certain areas that were designated nonattainment for certain pollutants. For example, section 182(a)(3)(A) required States to submit an emissions inventory every 3 years for ozone nonattainment areas beginning in 1993. Similarly, section 187(a)(5) required States to submit an inventory every 3 years for CO nonattainment areas. The EPA, however, did not immediately codify these statutory requirements in the CFR, but simply relied on the statutory language to implement them.

In 1998, EPA promulgated the NO_x SIP Call which

requires the affected States and the District of Columbia to submit SIP revisions providing for NO_x reductions to reduce their adverse impact on downwind ozone nonattainment areas. (63 FR 57356, October 27, 1998). As part of that rule, codified in 40 CFR 51.122, EPA established emissions reporting requirements to be included in the SIP revisions required under that action.

Another set of emissions reporting requirements, termed the Consolidated Emissions Reporting Rule (CERR), was promulgated by EPA in 2002, and is codified at 40 CFR part 51 subpart A. (67 FR 39602, June 10, 2002). These requirements replaced the requirements previously contained in subpart Q, expanding their geographic and pollutant coverages while simplifying them in other ways.

The principal statutory authority for the emissions inventory reporting requirements outlined in this SNPR is found in CAA section 110(a)(2)(F), which provides that SIPs must require "as may be prescribed by the Administrator... (ii) periodic reports on the nature and amounts of emissions and emissions-related data from such sources." Section 301(a) of the CAA provides authority for EPA to promulgate regulations under this provision.⁶

⁶ Other CAA provisions relevant to this SNPR include section 172(c)(3) (provides that SIPs for nonattainment areas must include comprehensive, current inventory of

2. Existing Emission Reporting Requirements

As noted above, at present, two sections of title 40 of the CFR contain emissions reporting requirements applicable to States: subpart A of part 51 (the CERR) and section 51.122 in subpart G of part 51 (the NOx SIP Call reporting requirements). This SNPR would consolidate these, with modifications as proposed below. The modifications are intended to achieve the additional reporting needed to verify the reductions required by the proposed CAIR, to harmonize the emissions reporting requirements, to reduce and simplify them, and to make them more easily understood.

Under the NOx SIP Call requirements in section 51.122, emissions of NOx for a defined 5-month ozone season (May 1 through September 30) from sources that the State has subjected to emissions control to comply with the requirements of the NOx SIP Call are required to be reported by the affected States to EPA every year. However, emissions of sources reporting directly to EPA as part of the NOx trading program are not required to be reported by the State to EPA every year. The affected States are also required to report ozone season emissions and typical summer

actual emissions, including periodic revisions); section 182(a)(3)(A) (emissions inventories from ozone nonattainment areas); and section 187(a)(5) (emissions inventories from CO nonattainment areas).

daily emissions of NO_x from all sources every third year (2002, 2005, etc.) and in 2007. This triennial reporting process does not have an exemption for sources participating in the emissions trading programs. Section 51.122 also requires that a number of data elements be reported in addition to ozone season NO_x emissions. These data elements describe certain of the source's physical and operational parameters.

Emissions reporting under the NO_x SIP Call as first promulgated was required starting for the emissions reporting year 2002, the year prior to the start of the required emissions reductions. The reports are due to EPA on December 31 of the calendar year following the inventory year. For example, emissions from all sources and types in the 2002 ozone season were required to be reported on December 31, 2003. However, because the Court which heard challenges to the NO_x SIP Call delayed the implementation by 1 year to 2004, no State was required to start reporting until the 2003 inventory year. In addition, EPA recently promulgated a rule to subject Georgia and Missouri to the NO_x SIP Call with an implementation date of 2007. (See 69 FR 21604, April 21, 2004.) For them, emissions reporting begins with 2006. These emissions reporting requirements under the NO_x SIP Call affect the District of Columbia and

22 of the 29 States affected by the proposed CAIR.

As noted above, the other set of emissions reporting requirements is codified at subpart A of part 51. Although entitled the CERR, this rule left in place the separate §51.122 for the NOx SIP Call reporting. The CERR requirements were aimed at obtaining emissions information to support a broader set of purposes under the CAA than were the reporting requirements under the NOx SIP Call. The CERR requirements apply to all States.

Like the requirements under the NOx SIP Call, the CERR requires reporting of all sources at 3-year intervals (2002, 2005, etc.). It requires reporting of certain large sources every year. However, the required reporting date under the CERR is 5 months later than under the NOx SIP Call reporting requirements. Also, emissions must be reported for the whole year, for a typical day in winter, and a typical day in summer, but not for the 5-month ozone season as is required by the NOx SIP Call. Finally, the CERR and the NOx SIP Call differ in what non-emissions data elements must be reported.

3. Proposed Emissions Reporting Requirements

The EPA proposes to further consolidate the detailed requirements for emissions reporting by States entirely into subpart A, while adding limited new requirements for

emissions reports to serve the additional purposes of verifying the CAIR-required emissions reductions. This will allow EPA to monitor compliance with the CAIR, as well as assess from time to time progress in mitigating the interstate transport of ozone and PM_{2.5} precursors.

This SNPR would also harmonize the reporting requirements, and reduce and simplify them in several ways. The major changes included in the proposed rule text are described below. A technical support document in the docket provides a detailed explanation of every change and its purpose.⁷

Amendments are proposed to subpart A, which contains §51.1 through 51.45 and an appendix, and to §51.122 in particular. We also propose to add a new §51.125.

- In §51.122, we propose to abolish certain requirements entirely, and to replace certain requirements with a cross reference to subpart A so that detailed lists of required data elements appear only in subpart A. As amended, §51.122 will specify what pollutants, sources, and time periods the States subject to the NO_x SIP Call must report and when, but will no longer list the

⁷ "Technical Support Document on Emissions Inventory Reporting Requirements for the Proposed Clean Air Interstate Rule (May 2004)" can be obtained from the docket for today's proposed rule: OAR-2003-0053.

detailed data elements required for those reports.

- The new §51.125 will be functionally parallel to §51.122, specifying what pollutants, sources, and time periods the States subject to the proposed CAIR must report and when, referencing subpart A for the detailed data elements required.
- The amended subpart A will list the detailed data elements as well as provide information on submittal procedures, definitions, and other generally applicable provisions.

Taken together, the existing emissions reporting requirements under the NO_x SIP Call and CERR are already rather comprehensive in terms of the States covered and the information required. Therefore, the practical impact of the changes proposed today is to impose only three new requirements.

First, in Arkansas, Iowa, Louisiana, Mississippi, and Wisconsin, for which we have proposed a finding of significant contribution to ozone nonattainment in another State but which were not among the 22 States subject to the NO_x SIP Call, the required emissions reporting will be expanded to match those of the 22 States. The change requires that they report NO_x emissions during the 5-month ozone season, in addition to the existing requirement for

reporting emissions for the full year. We are proposing that this new requirement begin with the triennial inventory year prior to the CAIR implementation date. This will be the 2008 inventory year, the report for which will be due to EPA by June 1, 2010.

Second, under the existing CERR, yearly reporting is required only for sources whose emissions exceed specified amounts. Under this SNPR, the 28 States and the District of Columbia subject to the CAIR for reasons of PM_{2.5} must report to EPA each year a set of specified data elements for all sources subject to new controls adopted specifically to meet the CAIR requirements related to PM_{2.5}, unless the sources participate in an EPA-administered emissions trading program. This is like the every-year reporting requirement for controlled sources under the NO_x SIP Call, but covering SO₂ in addition to NO_x and covering the whole year - since the PM_{2.5} NAAQS at issue is the annual NAAQS - rather than only the ozone season. This proposal could increase the number of sources for which States must submit reports each year rather than only every third year, if a State chooses to control non-EGU sources under this SNPR or if the State does not join the EPA trading programs for EGUs. We are proposing that this new requirement begin with the 2009 inventory year, the report for which will be due to EPA by

June 1, 2011. After the 2009 reporting year, this new requirement will have no effect on States that fully comply with the CAIR by requiring their EGUs to participate in the EPA model cap-and-trade programs.

Third, in all States, we are proposing to expand the definition of what sources must report in point source format, so that fewer sources would be included in non-point source emissions.⁸ We are proposing to base the requirement for point source format reporting on whether the source is a major source under 40 CFR part 70 for the pollutants for which reporting is required, i.e., for CO, VOC, NOx, SO2, PM2.5, PM10 and ammonia but without regard to emissions of hazardous air pollutants. Currently, the requirement for point source reporting is based on actual emissions in the year of the inventory report. This change may require more sources than at present to be reported as point sources

⁸ We use the term "non-point source" to refer to a stationary source that is treated for inventory purposes as part of an aggregated source category rather than as an individual facility. In the existing subpart A of part 51, such emissions sources are referred to as "area sources." However, the term "area source" is used in section 112 of the CAA to indicate a non-major source of hazardous air pollutants, which could be a point source. As emissions inventory activities increasingly encompass both NAAQS-related pollutants and hazardous air pollutants, the differing uses of "area source" can cause confusion. Accordingly, EPA proposes to substitute the term "non-point source" for the term "area source" in subpart A, §51.122, and the new §51.125 to avoid confusion.

every third year. The new approach will make it possible to better track source emissions changes, shutdowns, and start ups over time. It will result in a more stable universe of reporting point sources, which in turn will facilitate elimination of overlaps and gaps in estimating point source, as compared to non-point source, emissions. Under this proposal, States will know well in advance of the start of the inventory year which sources will need to be reported. We are proposing that these new requirements begin with the 2008 inventory year, the report for which will be due to EPA by June 1, 2010. We invite comment on whether this change could instead be practically implemented for the 2005 inventory year, which we believe is desirable if it is practicable. We intend to finalize this proposed change even if for some reason the new emissions reductions requirements of the proposed CAIR and the above two changes in emission reporting requirements are not finalized as proposed, because this change is appropriate for the purposes of monitoring the effectiveness of current SIP programs.

A number of proposed changes will reduce reporting requirements on States or provide them with additional options:

- The NO_x SIP Call rule required the affected States to

submit emissions inventory reports for a given ozone season to EPA by December 31 of the following year. The CERR requires similar but not identical reports from all States by the following June 1, 5 months later. The EPA believes that harmonizing these dates would be efficient for both States and EPA. We are proposing to move the December 31 reporting requirement to the following June 1, the more generally applicable submission date affecting all 50 States. We invite comment on whether allowing this 5-month delay is consistent with the air quality goals served by the emissions reporting requirements. However, we also invite comment on the alternative of moving forward to December 31 all or part of the June 1 reporting for all 50 States. In particular, we solicit comment on requiring that point sources be reported on December 31 and other sources on June 1. This approach would eliminate the problem of States having to make two submissions for point sources within a 5-month period, and would result in more timely submission of the emissions information for point sources. More timely submission would be particularly useful for point sources because point sources generally are the primary subject of control measures in SIPs. The later June 1

submission date for non-point sources and mobile sources would allow more time for estimating these emissions sources, which in some cases may require vehicle miles traveled or business activity data not available in time for a December 31 submission. In addition, estimating emissions of some types of non-point sources requires prior knowledge of emissions and activity levels at point sources of the same industrial type; therefore, it makes sense to stagger the submission deadlines for those different sources.

- We also propose to eliminate a requirement of the NOx SIP Call for a special all-sources report by affected States for the year 2007, due December 31, 2008. The normal cycle of every-third-year reporting would also produce the same type of all-sources reports for 2005 and 2008. The EPA originally intended to use the information on 2007 emissions to re-assess the effectiveness of the NOx SIP Call in eliminating upwind NOx emissions that contribute significantly to downwind ozone nonattainment as of the latest 1-hour ozone attainment date within the region. The large majority of the emissions reductions required by the NOx SIP Call have been assigned to sources that participate in the EPA-administered trading program, which has

independent procedures to ensure that emissions reductions are achieved. We now believe that examining 2005 and 2008 inventory submissions and the annual reporting on controlled sources will permit us to evaluate the effectiveness of individual State rules or implementation practices in reducing emissions. We no longer need the special 2007 emissions inventory information to broadly revisit the NO_x SIP Call, and we recognize that preparing that inventory could draw resources away from more important work by State air agencies.

- We propose to remove a requirement in the existing CERR for reporting annual and typical ozone season day biogenic emissions. Because biogenic emissions vary greatly with daily weather conditions and because there are other practical methods for obtaining hourly estimates across whole regions when needed by EPA, States, or others, we believe this requirement for reporting biogenic emissions serves no useful purpose. This change does not affect our expectation that biogenic emissions be appropriately considered in ozone and PM_{2.5} attainment demonstrations.
- We are proposing a new provision which would allow States the option of providing emissions inventory

estimation model inputs in lieu of actual emissions estimates, for source categories for which prior to the submission deadline EPA develops or adopts suitable emissions inventory estimation models and by guidance defines their necessary inputs. This provision will allow source reporting to evolve to take advantage of new emissions estimation tools for greater efficiency, although the States will remain required to provide inputs representative of their conditions. We propose this option be available starting with the reports on 2003 emissions.

- We are proposing to delete the existing requirement that all States report emissions for a winter work week day. This requirement was originally aimed at tracking progress towards attainment of the CO NAAQS. We believe applying this requirement to all States is no longer warranted given that CO violations are currently observed in few areas. We believe we can work directly with the remaining affected States to monitor efforts to attain, without requiring formal submission of CO inventories.

The NO_x SIP Call rule and the CERR contain detailed lists of required data elements in addition to emissions, and each rule has its own set of definitions. The two sets

of data elements overlap but are not identical. Generally, the NOx SIP Call rule required more data elements to be reported. The EPA has reviewed both lists in light of more recent experiences and insight into the difficulty States face in collecting and submitting these data elements and their utility to EPA, other States, and other users. We are proposing to combine the separate lists of required elements into a single new list of required data elements. A few data elements are proposed to be eliminated, as explained in the technical support document for inventory reporting. We propose that these relatively minor changes become applicable starting with the first required emissions reports following the promulgation of the final CAIR, which we expect to be the reports regarding emissions during 2003, due June 1, 2005.

There are a number of currently required data elements that have been kept in the proposed rule text, but on which we invite comment as to whether they should be dropped in the final rule. These are heat content (fuel), ash content (fuel), sulfur content (fuel) for fuels other than coal, activity/throughput, hours per day in operation, days per week in operation, weeks per year in operation, and start time in the day. These data elements have been carried forward from emissions reporting systems dating back many

years. We believe it is appropriate to take comment on their current usefulness.

We also invite comment on whether the current data elements that describe emissions control equipment type and efficiency are adequate. We believe it is important for States to report on the manner in which sources are currently controlled so that opportunities for additional highly cost-effective controls can be assessed from time to time, but the existing data elements may not be adequate and appropriate for that purpose. The present data elements related to control measures are primary control efficiency, secondary control efficiency, control device type, and rule effectiveness for point sources; and total capture/control efficiency, rule effectiveness, and rule penetration for non-point sources and nonroad mobile sources.⁹

We are proposing to retain the requirement for reporting of summer day emissions from all sources (except biogenic sources) at 3-year intervals, but to restrict it to only States with ozone nonattainment areas or for which we are proposing a finding of significant contribution to ozone nonattainment in another State. The NOx SIP Call requires

⁹ Additional information on emissions data elements and the formats and valid codes presently in use for State reporting to EPA is available on the EPA website <http://www.epa.gov/ttn/chief/nif/index.html>

reporting only of NO_x emissions for a typical summer day, while the CERR requires reporting of all pollutants. We propose to restrict the requirement to VOC and NO_x emissions, but we invite comment on whether CO emissions should be required also.

At present, States are required to report three particular data elements for point source stacks: stack diameter, exit gas velocity, and exit gas flow rate. This is a redundant requirement, since any one of these can be calculated from the other two. We invite comment on which of these to drop from the required list of data elements, if any. Our preference would be to collect the data element that is most closely tied to an actual operating measurement. Alternatively, we may allow States to report either exit gas flow or exit gas velocity, at their option.

Finally, we propose to modify section 51.35 of subpart A, to provide that if States obtain one-third of their necessary emissions estimates from point sources and/or prepare one-third of their non-point or mobile source emissions estimates each year on a rolling basis, they should submit their data as a single package on the required every-third year submission date.

C. Acid Rain Program

In this SNPR, EPA proposes several revisions of the Acid Rain Program regulations (40 CFR parts 72 through 78). Most of the proposed revisions would affect the provisions in the regulations concerning the requirement to hold allowances sufficient to authorize annual SO₂ emissions. These proposed revisions would facilitate the interaction of the Acid Rain Program with the proposed CAIR trading program. However, because these proposed modifications also would benefit the implementation of the existing Acid Rain Program, EPA is proposing to adopt them regardless of whether other rules proposed in the CAIR are adopted.

As the basis for these proposed revisions of the Acid Rain Program regulations, EPA proposes to modify its interpretation of title IV of the CAA and, specifically, provisions in sections 403, 404, 405, 408, 409, 411, and 414, concerning the requirement to hold allowances. Provisions in each of these sections address the allowance-holding requirement by: stating the requirement that sufficient allowances be held for a unit after a calendar year to authorize emissions at least equal to the unit's tonnage of SO₂ emissions during that year; referencing this requirement; or establishing the penalties and offsets for violation of this requirement.

The following is a description of these statutory provisions. Section 403(g) is a general prohibition barring each affected unit from emitting SO₂ in excess of the number of allowances "held for that unit for that year by the owner or operator of the unit" (42 U.S.C. 7651b(g)). Various provisions in sections 404 and 405 refer to existing units (those commencing commercial operation before November 15, 1990) and state that a unit's emissions may not exceed its allowance allocation unless the owner or operator of such unit "holds allowances to emit not less than the unit's total annual emissions" (42 U.S.C. 7651c(a), 7651c(c)(2), 7651c(d)(1) and (5), 7651d(b)(1) and (3), 7651d(c)(1) through (3) and (5), 7651d(d)(1) and (2), 7651d(e), 7651d(f)(1), 7651d(h)(1)).¹⁰ Section 403(e) refers to new units and States that it is unlawful for such a unit "to emit an annual tonnage of sulfur dioxide in excess of the number of allowances to emit held for the unit by the unit's owner or operator" (42 U.S.C. 7651b(e)).¹¹ Section

¹⁰ See also 42 U.S.C. 7651h(f) (section 409(f), referring to repowered sources and the "prohibition against emitting sulfur dioxide in excess of allowances held").

¹¹ See also 42 U.S.C. 7651d(g)(1) (section 405(g)(1), referring to certain new units and stating that a unit's emissions may not exceed its allowance allocation unless the owner or operator of such unit "holds allowances to emit not less than the unit's total annual emissions").

403(d)(1) provides that "the total tonnage of emissions in any calendar year (calculated at the end thereof) from all units in such a utility system, power pool, or allowance pool agreements shall not exceed the total allowances for such units for the calendar year concerned" (42 U.S.C. 7651b(d)(2)). Section 403(f) states that each permit under titles IV and V of the CAA must provide that "the affected unit may not emit an annual tonnage of sulfur dioxide in excess of the allowances held for that unit" (42 U.S.C. 7651b(f)).¹² Section 411(a) establishes the owner or operator's liability for an excess emissions penalty if SO₂ is emitted at the unit in excess of the "allowances the owner or operator holds for use for the unit for that calendar year" (42 U.S.C. 7651j(a)).¹³ Finally, section 414

¹² See also 42 U.S.C. 7651g(a) (section 408(a)(1), stating that each permit must prohibit "annual emissions of sulfur dioxide in excess of the number of allowance to emit sulfur dioxide the owner or operator, or the designated representative of the owners or operators, of the unit hold for the unit"); and 42 U.S.C. 7651g(d)(4) (section 408(d)(4), stating that each Phase II permit must bar "affected units at the affected source" from emitting "in excess of the number of allowances to emit sulfur dioxide the owner or operator or designated representative hold for the unit").

¹³ See also 42 U.S.C. 7651j(b) (section 411(b), stating that the owner or operator of "any affected source that emits sulfur dioxide during any calendar year in excess of ... the allowances held for the unit for the calendar year" is liable for an equal tonnage offset of the excess emissions).

provides that the operation of an affected unit to emit SO₂ in excess of "allowances held for such unit" is a violation of the CAA, with each ton emitted in excess of allowances held constituting a separate violation (42 U.S.C. 7651m).

In summary, sections 403(e) through (g), 408(a) and (d), 411(a) and (b), and 414 all state that the owner or operator must hold allowances "for the unit" at least equal to the unit's SO₂ emissions. While section 403(d)(2) refers to "all units" on a "utility system's power pool, or allowance pool agreements," EPA interprets this provision as consistent with the requirement that allowances must be held for each such unit at least equaling the unit's emissions.¹⁴ The remaining provisions cited above contain a more shorthand reference to the allowance-holding requirement by simply stating that the owner or operator must hold sufficient allowances for a unit's emissions.

Moreover, section 403(b) of the CAA requires the Administrator to establish by regulation the allowance tracking system, including the requirements for "allocation, transfer, and use of allowances" (e.g., for the holding of allowances). 42 U.S.C. 7651b(b). For example, in

¹⁴ See 64 FR 25835-25837 (explaining that the legislative history of section 403(d)(2) indicates that the provision was not intended to require or authorize aggregation of such units' allowances to determine compliance with the allowance-holding requirement).

establishing the allowance tracking system, the regulations must specify which accounts in the allowance tracking system must contain allowances used to meet the allowance-holding requirement. However, none of the above-described statutory provisions on the allowance-holding requirement specifically identify the type of account in which a unit's owner or operator must hold allowances in order to meet that requirement. In particular, these statutory provisions do not state, and thus are ambiguous concerning, whether the account must be an account unique to the unit "for" which allowances are held (i.e., a unit-level account) or whether the account can be "for" all units at a given source (i.e., a source-level account).

The EPA has exercised its authority under section 403(b) in several prior rulemakings, in which EPA considered the question of what type of account could be used to hold allowances "for" a unit to meet the allowance-holding requirement. In the initial rulemaking for the Acid Rain Program that resulted in the January 11, 1993 core rules for the program, EPA interpreted the statutory provisions on allowance holding to mean that, in general, allowances "for" a unit could be held only in an account unique to that unit (referred to in the regulations as a "unit account"). (See 63 FR 41358, 41362, August 3, 1998) (discussing that

allowances had to be held in a subaccount (the "compliance subaccount") of the unit account). Even so, the January 11, 1993 rules include an exception, continued in the existing rules, for affected units that share a common stack and monitor at the stack, not at the individual units. For such common-stack units, the designated representative has the option to assign (before the allowance transfer deadline) a percentage of allowances to be deducted from the unit account for each unit so that the total deduction for all the common-stack units equals the total annual emissions from these units. If the option is not exercised, an equal percentage of the allowances is deducted from the unit account of each unit. The assigned, or the default, deductions need not have any relationship to the actual distribution of emissions among the common-stack units. Consequently, the treatment of common-stack units effectively allows the allowances in a unit's unit account to be used to cover emissions from another unit at the same source. (See 63 FR 41362.)

In a rulemaking completed in May 1999, EPA reconsidered and revised its interpretation of title IV, and revised the Acid Rain Program regulations, in order to allow a unit to use some allowances in the unit account of another unit at the source to meet the allowance-holding requirement. (64

FR 25834, May 13, 1999). This revision applied to units at the same source even if they were not common-stack units. The revised regulations resulting from that rulemaking allow a unit to use allowances in the unit account of another unit at the same source up to a limit equal to the greater of: 95 percent of the difference between the first unit's emissions and the allowances in its own unit account; or 10 tons. See 40 CFR 73.35(b)(3) (§73.35(b)(3)). This approach effectively allows the owner or operator to approach source-wide compliance in that, except for the above-described limit, allowances at one unit are considered to be held "for" another unit at the same source and can be used to meet the allowance-holding requirement. The EPA explained that the limit on using another unit's allowances would "provide owners and operators with a strong incentive to hold sufficient allowances in an affected unit's account" and that compliance would "routinely" be achieved on a unit-by-unit basis. (64 FR 25837). In adopting this interpretation of the ambiguous language in title IV concerning the allowance-holding requirement, EPA stated that it was balancing the general unit-by-unit orientation of title IV and the need for "compliance flexibility." Compliance flexibility is necessary to reduce excess emission penalties where there are insufficient allowances

in the unit's unit account due to "inadvertent, minor errors" but enough allowances in the account of another unit at the same source.

In today's SNPR, EPA is reconsidering the extent to which allowances in the account of one unit at a source can be used to meet the allowance-holding requirement for another unit at the same source. There are several factors relevant to this reconsideration. The first factor is that, as discussed above, the statutory provisions setting forth the allowance-holding requirement do not specifically refer to allowance accounts, much less dictate the type of account in which allowances must be held "for the unit" in meeting this requirement. To the extent only allowances held in a unit-level account are treated as being held "for" the unit involved, compliance must be met on an individual-unit basis. To the extent all allowances held in a source-level account are treated as being held "for" all units at the source involved, compliance may be met on a source-wide basis. In light of the ambiguity in the statutory allowance-holding-requirement provisions, EPA believes that it has discretion in determining whether to apply the allowance-holding requirement at the unit level or the source level. Indeed, EPA maintains that the degree of compliance flexibility that was provided in the May 13, 1999

rulemaking did not exhaust EPA's discretion in moving toward source-level compliance.

The second factor considered by EPA is that it is important to provide compliance flexibility by allowing one unit at a source to use, for compliance, allowances from other units at that source. The statutory excess emissions penalty of \$2,000 (adjusted for inflation since 1990 to about \$2,900) per ton is over ten times the current market value of an allowance. Moreover, unlike the general civil penalties under section 113 for violations of the CAA, section 411 makes the excess emission penalty automatic (not discretionary) and therefore applicable to all excess emissions at a unit, even if they result from inadvertent, minor errors by the owner or operator. Consequently, companies have potential liability for large excess emissions penalty payments for what may be inadvertent, minor errors. For example, a company may have acquired enough allowances to authorize all the annual emissions from units at a source but incorrectly distributed the allowances among the unit accounts for those units. The distribution may be incorrect because of something as simple as: an error by the owner or operator in calculating how many allowances will remain in each unit account after allowance transfers submitted just before the allowance transfer deadline are

recorded; an error in the allowance amount, or in the account number of the transferee, listed in an allowance transfer form; or an error in identifying the unit for which collected emission data are reported.

In the May 13, 1999 rulemaking, EPA partially addressed this problem by allowing a unit with fewer allowances in its unit account than emissions to use allowances in the unit accounts of other units at the source, but with a limit on that use. (See 63 FR 41360 and 64 FR 25838-25839). Under the current §73.35(b)(3), the unit may use allowances from other units at the source to eliminate up to the greater of: 95 percent of that unit's allowance deficit; or 10 tons. While this can significantly reduce a unit's potential liability for excess emission penalty payments, the excess emission penalty payments can still be quite large, particularly when the allowance deficit is large enough that the 95 percent limit, rather than the 10-ton limit, applies. The 95 percent limit applies whenever the allowance deficit exceeds 200. An error, such as reversing digits in the allowance amount in a transfer form or misidentifying the unit for which collected emission data are reported, can easily result in a very large allowance deficit and therefore in a large penalty payment when the 95 percent limit on use of other units' allowances applies. In short,

the current provisions in §73.35(b)(3) do not fully (and in EPA's view do not sufficiently) address the problem of excess emission penalty payments that potentially are far out of proportion to the errors involved.

The third factor considered by EPA is that, as noted in prior rulemakings, title IV evidences in language addressing matters beyond the allowance-holding requirement a "pervasive unit-by-unit orientation." (See 63 FR 41360). For example, the applicability of title IV is determined on a unit-by-unit basis under sections 402 (definitions of "unit," "existing unit," "new unit," "utility unit," and "affected unit"), 403(e), 404(a)(1), and 405. Allowances are allocated, and annual SO₂ emission limitations are set, for individual units. Under section 411(a), excess emissions penalties are imposed on owners and operators of units that have excess emissions, while, under section 411(b), offsets of excess emissions are imposed on owners and operators of sources with units that have excess emissions. Section 412(a) requires unit-by-unit monitoring of emissions, except that, in the case of units at a common stack, separate monitors for each unit are not required if sufficient information for compliance determinations is provided.

Balancing the three above-described factors, EPA proposes to revise the Acid Rain regulations to allow a unit

to use for compliance any allowances from other units at the same source.¹⁵ This approach limits the extent of deviation from the unit-by-unit orientation evidenced in the non-allowance-holding provisions of title IV in that a unit may only use allowances held for other units that are at essentially the same geographic location as that unit, i.e., other units that are at the same source. Moreover, there are no significant environmental consequences to shifting from unit- to source-level compliance. This approach is also feasible in that it does not require any dramatic changes in the operation of the Acid Rain Program. For example, only one designated representative (i.e., the designated representative of the source at which the units are located) will be involved in ensuring that there are sufficient allowances to cover emissions as of the allowance transfer deadline. It also appears that this approach will result in a minimum of changes to existing contracts involving allowance agreements among different owners of units at a source. This is because §73.35(b)(2) already allows a unit to use allowances from other units at the same source within certain limits (i.e., the 95 percent and 10

¹⁵ For the reasons set forth in the preamble of the May 13, 1999 final rule, EPA maintains that allowing company-level compliance or compliance at any other, higher level is neither required by title IV nor appropriate. See 64 FR 25835-25837.

ton limits described above), and today's SNPR simply removes those limits.

In order to implement the proposal to allow a unit to use allowances from other units at the same source without limit, EPA is proposing the following specific changes to the Acid Rain Program regulations. The EPA's objective is to implement the proposal, but with a minimum of changes to the language of the Acid Rain Program regulations. Other than implementing the proposed shift from unit- to source-level compliance, these proposed revisions are not intended to make any substantive changes to the revised provisions.

1. The term "unit account" is replaced by "compliance account" in §72.2 and, as appropriate, in every other provision of the Acid Rain Program regulations in which the term appears. Similarly, references to a "unit's" account in the Allowance Tracking System are replaced by references to a "source's" account. In addition, references to allowances held by a "unit" are changed to refer to allowances held by a "source."

2. References to a "unit's" Acid Rain emissions limitation for SO₂ are replaced by references to a "source's" Acid Rain emissions limitation for SO₂ throughout the Acid Rain Program regulations.

Similarly, references to a "unit's" SO₂ emissions for

purposes of applying the SO₂ emissions limitation (or a "unit's" excess emissions) are replaced, where appropriate, by references to the SO₂ emissions of the "affected units at a source" or to a "source's" excess emissions. It should be noted that the proposed rule language accompanying this preamble attempts to list every instance in which the terms "unit's" Acid Rain emissions limitation for SO₂ and "unit's" SO₂ emissions or excess emissions (as well as the terms "unit account," a "unit's" account, and allowances held by a "unit") appear and should be replaced. However, even if some instances were missed, EPA proposes to replace the term in all instances necessary to implement source-level compliance with the allowance-holding requirement and requests comment on, among other things, what other instances may have been missed.

3. The provisions in §§72.90(b)(5) and 73.35(e) concerning the assignment of allowance deductions among units at a common stack are removed. These provisions are unnecessary with the shift from unit- to source-level compliance.

4. The terms "compliance subaccount," "future year subaccount," and "current year subaccount" (and their definitions) are removed or replaced, as appropriate,

throughout the Acid Rain Program regulations. The current regulations distinguish between two subaccounts in each unit account, i.e., the "compliance subaccount" for allowances usable for compliance in a given year and a "future year subaccount" for allowances not usable until a future year. Similarly, the current regulations refer to a "current year subaccount" of a general account. The electronic Allowance Tracking System does not currently use or refer to these subaccounts. Moreover there is also no need to use or refer to them when compliance is on a source-level basis. The proposed rule language accompanying this preamble attempts to list every provision in which the terms "compliance subaccount," "future year subaccount," and "current year subaccount" appear and to modify the provision as necessary to remove these terms without changing the substance of the provision. However, even if some instances were missed, EPA proposes to replace the terms in all instances and requests comment on, among other things, what other instances may have been missed.

5. The provision in §73.35(b)(3) limiting the use of allowances from another unit at the same source for compliance is removed.

The EPA notes, in addition to the above-described rule changes, shifting from unit- to source-level compliance under the Acid Rain Program would require revisions to the software used to operate the Allowance Tracking System and to reconcile allowances and emissions after the end of each calendar year. For example, one approach might be to revise the software to aggregate and convert unit accounts in the Allowance Tracking System to source-level compliance accounts. The system would need to move the allowances in the unit accounts of all affected units at a given source to the new source-level compliance account and ensure recordation in the compliance account of the allowances allocated to such units. In addition, annual emissions for the affected units at a source would have to be summed and then compared with the allowances in that source's compliance account. Because of the time necessary to revise the software and to conduct testing to ensure that the Allowance Tracking System operates properly, EPA believes that the rule changes implementing source-level compliance, if adopted in a final rule, should not become effective before July 1, 2005. Under that approach, compliance under the Acid Rain Program for the 2004 calendar year (which is determined after the allowance transfer deadline for 2004, i.e., March 1 or the next business day if March 1 is not a

business day) would remain at the unit-level, and compliance would shift to the source-level for the 2005 calendar year. An effective date of July 1, 2005 would ensure that the source-level rule changes would take effect after completion of the process of determining compliance for 2004. The EPA's experience is that the compliance determination process is generally completed several months after the end of the year for which emissions and allowances are compared. The July 1, 2005 effective date would give owners and operators, as well as EPA, the opportunity to adjust internal procedures to take account of source-level compliance. The EPA requests comment on a July 1, 2005 effective date for the Acid Rain Program rule changes discussed in today's notice and on any alternative effective dates for such rule changes.

The EPA further notes that not only is the proposed shift to source-level compliance consistent with title IV and an improvement to the operation of the Acid Rain Program, but also this change would facilitate the coordination of this program with the proposed CAIR trading program. The latter program, of course, requires source-level compliance.

The EPA is also proposing other revisions of the Acid Rain Program that do not address the allowance-holding

requirement but that are focused on facilitating the interaction of the Acid Rain Program and the proposed CAIR trading program. For example, certain language in the definition of "cogeneration unit" in §72.2, which definition was recently changed (See 67 FR 40420, June 12, 2002), is changed back to the original language so that it is consistent with certain language in the proposed definition of "cogeneration unit" in the CAIR model trading rules. See section IV below.

Further, the language required in §72.21(b)(1) for the certification that must be in each submission by the designated representative in the Acid Rain Program would be revised so that the same submission-certification language can be used for submissions for units whether the units are in both the CAIR trading program and the Acid Rain Program or in only one of the programs. Similarly, certain language required in §72.24 (paragraphs (a)(5), (a)(7), and (a)(10)) for the certificate of representation for the designated representative in the Acid Rain Program would be removed so that the same, standard certificate can be used for units that are in one or both programs. This would remove requirements (e.g., for a 1-day newspaper notice of the designation of a designated representative) that EPA believes have proved to be unnecessary. For the same

reason, certain language required in §73.31(c)(v) for the certificate of representation for an authorized account representative in the Acid Rain Program would be removed as unnecessary. With the proposed changes in §§72.24 and 73.31, the language for certificates of representation in the Acid Rain Program and the CAIR trading program would be the same as the language in the certificates of representation in the NOx Budget Trading Program under the NOx SIP Call.

A further example is that the general requirement for all affected sources to submit compliance certification reports at the end of each year is removed as superfluous. Sources already are required to submit compliance certification reports under title V of the CAA that cover compliance with CAA requirements, including the Acid Rain Program requirements. Moreover, the quarterly emissions reports that each unit must submit already include a certification of compliance with the monitoring and reporting requirements under part 75 of the Acid Rain Program regulations. The proposed CAIR trading programs do not require submission of annual compliance certification reports.

In addition, several provisions in the Acid Rain Program regulations concerning the allowance tracking system

are proposed to be removed or revised in order to make the allowance tracking systems in the Acid Rain Program, the NOx Budget Trading Program, and the proposed CAIR trading program as similar as possible. For example, §73.32 has proved to be superfluous (and includes obsolete references to compliance and current year subaccounts) and would be removed. Section 73.33(c) imposes a one-day newspaper notice requirement for authorized account representatives that has proved to be unnecessary and would be removed. Sections 73.37(a) through (d) would be removed since the claim of error procedure has proved to be superfluous and has not been used. Similarly, §§ 73.50 and 73.52 would be revised to remove superfluous language and to conform to the provisions under the NOx Budget Trading Program and the proposed CAIR trading program. For instance, language referencing allowance transfers in perpetuity is removed as superfluous since such transfers are allowed under these sections (and in the NOx Budget Trading Program) even without such language.

D. NOx SIP Call

1. Emissions Reduction Requirements

Today's SNPR requires additional reductions in NOx from States affected by the NOx SIP Call. However, this SNPR would not relieve those States from the requirements of the

NOx SIP Call. Except as explained below, States should retain all of the SIP provisions that they adopted to meet the requirements of the NOx SIP Call.

All of the States subject to the NOx SIP Call (with the exception of Georgia and Missouri, which are not required to submit SIPs until 2005) chose to meet at least part of their emission reduction requirement by including their EGUs in a multi-State ozone season NOx trading program. The EPA has performed modeling of expected NOx emissions from EGUs assuming that all States affected by the proposed CAIR achieve all of their required NOx reductions under the CAIR by including their EGUs in a regionwide annual NOx cap-and-trade program. Based on that modeling, EPA has proposed that if States achieve all of the mandated NOx reductions by including their EGUs in the regionwide, annual NOx cap-and-trade program managed by EPA, EPA will consider the reductions from that program to also meet the ozone season reduction requirements that States were previously achieving from EGUs participating in a regionwide ozone season NOx cap-and-trade program. Under these circumstances, EGUs in a State achieving all of the required NOx reductions from only EGUs would not be subject to a seasonal NOx cap-and-trade program unless the State elects to retain such a program. The EPA believes this approach would simplify compliance for

sources and avoid the potential administrative burden of implementing both a seasonal and annual cap-and-trade program for EGUs.

2. NOx SIP Call Cap-and-Trade Program for Non-EGUs

The EPA is proposing to continue administering an ozone season only NOx cap-and-trade program for non-EGUs that are subject to the requirements of the regionwide NOx SIP Call cap-and-trade program. In today's SNPR, EPA proposes modifications to part 51 of the NOx SIP Call to reflect the continued participation of non-EGUs in the ozone season NOx cap-and-trade program and the removal of EGUs from their ozone season NOx limitations.

Maintaining the ozone season reductions from non-EGUs in the NOx SIP Call is important for limiting their interstate contribution to ozone nonattainment. The EPA considered whether it would be appropriate to allow States to include non-EGUs in the annual CAIR trading program and relieve them from the requirements of the ozone season NOx trading program. However, EPA does not have sufficient information to project whether non-EGUs would continue to meet their ozone season NOx reduction requirements if they were subject to an annual limitation only. Therefore, EPA is proposing to continue to run the NOx SIP Call cap-and-trade program for non-EGUs.

The EPA acknowledges that, if non-EGUs are only permitted to trade with other non-EGUs, the robustness of the existing NOx SIP Call allowance market must be maintained to provide incentives for non-EGUs to find cost-effective emissions reductions. States that are concerned for the future health of the market may choose to revise their SIPs to achieve the non-EGU NOx emissions reductions using an alternate approach. The EPA solicits comment on the potential effects that removing EGUs from the NOx SIP Call trading market may have on the robustness of the market and any alternative mechanisms for addressing these concerns.

The EPA solicits comment on the above proposal and any other approaches.

3. NOx Early Reduction Credits¹⁶

Today's SNPR does not propose to allow the generation and use of early NOx emission reduction credits ("ERCs") but does solicit comment on whether NOx ERCs should be included in the CAIR and, if so, how a NOx ERC program should be structured.

If NOx ERCs are included, EPA expects that they would

¹⁶ Sulfur dioxide emission reduction credits (ERCs) are not proposed because the CAIR sources already have incentive to make early, annual reductions to bank Acid Rain Program SO₂ allowances into the CAIR cap-and-trade program.

primarily be generated by sources already subject to the NOx SIP Call that would choose to operate already installed selective catalytic reduction (SCR) technology during the 7-month "non-ozone season." These reductions in non-ozone season NOx reductions would provide some additional, early environmental benefit by reducing the atmospheric loading of NOx, acid precipitation, and fine PM precursors prior to the implementation of the CAIR. That said, EPA analysis projects that over 3.7 million tons of NOx ERCs could be created (between 2006 and 2010) and banked into the CAIR if unlimited non-ozone season ERCs were permitted in the program. Allowing these ERCs to be used for compliance with the CAIR NOx emission cap would delay progress towards achieving both the annual NOx reduction goals and could potentially reduce the ozone season reductions that are necessary for EPA to justify removing the NOx SIP Call constraint for EGUs.

If EPA were to include ERCs, several approaches could be utilized: (1) EPA could maintain the NOx SIP Call requirements and allow sources to use ERCs only for compliance with the annual limitation, to ensure that seasonal NOx limitations are met. Under this scenario, the additional States subject to the CAIR that have been found to significantly contribute to ozone nonattainment may also

have to be included in the ozone season cap; (2) EPA could limit the period of time during which ERCs could be created and banked; (3) EPA could cap the amount of ERCs that can be created; and (4) EPA could apply a discount rate to ERCs.

The EPA solicits comment on today's SNPR to not include NO_x ERCs and, if ERCs were included, how the mechanism for including ERCs should be structured.

E. How Would Emissions Trading Under the Proposed CAIR Relate to Regional Haze?

This section addresses the relationship between the CAIR and the CAA visibility-impairment provisions, in particular the Best Available Retrofit Technology (BART) requirements under the Regional Haze Rule. These provisions, under CAA Section 169A-B, require certain existing sources, including electric generating units (EGUs) that may be affected by SIPs required under CAIR, to install BART. However, the Regional Haze Rule further provides that sources otherwise subject to BART may be exempt if they are subject to alternative controls demonstrated to provide greater reasonable progress toward the national visibility goal. Today, EPA proposes that BART-eligible EGUs in any State affected by CAIR may be exempted from BART for controls for SO₂ and NO_x if that State complies with the CAIR requirements through adoption of the CAIR cap-and-trade

programs for SO₂ and NO_x emissions.

**1. Background: Nature of Regional Haze and Visibility
Impairment; Statutory and Regulatory Requirements**

The EPA has discussed the science and legal background for visibility impairment and regional haze elsewhere, most recently in the re-proposed Guidelines for BART Determinations (69 FR 25184, May 5, 2004). Readers are referred to that preamble for a detailed description of the background. The following is a brief summary.

a. What is regional haze? "Regional Haze" refers to air pollution that impairs visibility over a widespread area that may encompass several States. Regional haze occurs to varying degrees throughout the United States, including at national parks that may be as far as hundreds of miles from major pollution sources.¹⁷ Under sections 169A-B of the CAA, special protection is afforded to larger national parks and wilderness areas, which are termed "Class I areas."¹⁸

Visibility in Class I areas, measured as visual range, is observed to be on average one-half to two-thirds of the natural visual range that would exist in the absence of

¹⁷ National Research Council, Protecting Visibility in National Parks and Wilderness Areas, National Academy Press (Washington, D.C., 1993).

¹⁸ A "Class I area" is defined as any one of the 156 mandatory Class I Federal areas identified in part 81, subpart D of title I of the CAA.

anthropogenic pollution. Observations show that visibility is lowest in Class I areas in the eastern U.S., and significant impairment in visibility is also observed in the Midwest and on the Pacific coast. The best visibility occurs in the Central Rockies and in Alaska, but even in these locations, visibility is worse than would be expected without anthropogenic pollution.

Most visibility impairment is caused by fine particulate substances and associated water. While natural sources of fine particles, such as forest fires and windblown dust, can affect visibility significantly, anthropogenic emissions are usually the major source of regional haze.¹⁹

b. Major chemical components of particles that contribute to regional haze; EGUs as the major source of those components. The major chemical classes of fine particles that affect visibility include sulfates, organic matter, elemental carbon (soot), nitrates, and soil dust. The major sources and important aspects of the chemistry of these fine particle components as they affect PM_{2.5} mass were summarized in EPA's January 2004 proposal. (69 FR 4566, January 30, 2004).

¹⁹ NARSTO, Particulate Matter Science for Policy Makers - A NARSTO Assessment. February 2003.

As discussed in the January 2004 proposal, sulfate particles comprise a major portion of PM_{2.5} mass. The relative contribution of sulfates to visibility impairment is usually even greater than their contribution to particle mass, largely because sulfates absorb water, which enhances their capabilities to impair.²⁰ Nitrates, which also generally contribute proportionally more to visibility impairment than they do to fine particle mass, on average caused 5-10 percent of visibility impairment over much of the U.S.²¹ Further, as discussed in section II of the January 2004 proposal, the chemical interplay between ammonium sulfate and ammonium nitrate particles is important in determining the effectiveness of SO₂ and NO_x reductions in reducing fine particles and in improving visibility. Because of this "nitrate replacement," SO₂ controls that reduce sulfates will be more effective at improving visibility if complemented by NO_x controls that reduce nitrates, particularly in the winter.

c. Interstate transport and regional haze. A wealth of air

²⁰ Malm, W. C., et al. (2000) Spatial and Seasonal Patterns and Temporal Variability of Haze and its Constituents in the United States: Report III, Cooperative Institute for Research in the Atmosphere, Colorado State University, Fort Collins, CO.

²¹ Vimont, J. "Nitrates: Contribution to Visibility", National Park Service, Presentation to the Western Regional Air Partnership Workshop on NO_x, July, 2003.

quality observations and modeling data clearly demonstrate that PM_{2.5} and its precursors are transported across State boundaries. This body of evidence - particularly, EPA air quality modeling results - was summarized in the January 2004 proposal. Sulfur dioxide and NO_x emissions have been demonstrated to affect ambient PM_{2.5} concentrations over a wide interstate area. In addition, observations show that sulfate and nitrate make a large contribution to visibility impairment.²²

A large fraction of current and future SO₂ and NO_x emissions are attributable to EGUs. In the lower 48 States, the fraction of SO₂ emissions from EGUs is a consistent percentage of emissions from all sources, ranging from 62 to 65 percent over time; and EGU NO_x emissions as a percent of emissions from all sources is projected to grow slightly from 21 to 25 percent.

d. What are the Clean Air Act requirements for addressing regional haze? In the 1977 CAA, Congress added the first provisions to protect visibility in Class I areas.

Subsection (a)(1) of CAA section 169A establishes the following national visibility goal: "the prevention of any

²² Malm, W. C., et al. (2000) Spatial and Seasonal Patterns and Temporal Variability of Haze and its Constituents in the United States: Report III, Cooperative Institute for Research in the Atmosphere, Colorado State University, Fort Collins, CO.

future, and the remedying of any existing, impairment of visibility in mandatory Class I Federal areas which impairment results from manmade air pollution." Subsection (a)(4) of this provision requires EPA to promulgate regulations to assure "reasonable progress toward meeting [this] national goal...." In addition, the CAA visibility provisions contain a specific requirement for the installation of BART at certain existing sources, discussed below.

In 1980, EPA issued regulations addressing visibility impairment "that can be traced to a single existing stationary facility or small group of existing facilities." (45 FR 80085, December 2, 1980). In that rulemaking, the Agency explicitly deferred national rules addressing regional haze impairment.

In 1990, Congress added section 169B to the CAA to prompt EPA to address regional haze. These provisions specifically establish a commission for Grand Canyon National Park - the Grand Canyon Visibility Transport Commission (GCVTC) - and require the Commission to issue a report to EPA recommending measures to remedy visibility impairment. CAA Section 169B(a)-(d) and (f). In the 1990 CAA Amendments, Congress further provided that within 18 months after receiving this final report, EPA must "carry

out the Administrator's regulatory responsibilities under [section 169A], including criteria for measuring 'reasonable progress' toward the national goal." CAA Section 169B(e)(1).

The EPA published a rule in 1999 to address various aspects of regional haze (the Regional Haze Rule). (64 FR 35714, July 1, 1999). The Regional Haze Rule calls for the States to play the lead role in designing and implementing regional haze programs for Class I areas. Each State must establish goals that provide for reasonable progress, over the period covered by the SIP, toward achieving natural visibility conditions in the Class I areas in that State. 40 CFR 51.308(d)(1). States must also submit a long-term strategy, as well as measures necessary to implement that strategy, addressing visibility impairment due to regional haze for each Class I area in the State and for each Class I area located outside the State which may be affected by emissions from the State. 40 CFR 51.308(d)(1),(3).

The EPA provided the States with considerable flexibility in selecting the reasonable progress goals. The Regional Haze Rule requires that these goals both provide for improvement during the 20 percent most impaired days and ensure no degradation in visibility during the 20 percent clearest days. The baseline period for assessing

improvement and degradation is 2000-2004. In addition, for each Class I area within its borders, a State must determine the appropriate, annual rate of visibility improvement that would lead to "natural visibility" conditions. The rule includes a presumption that States can reach this goal in 60 years. 40 CFR 51.308(d)(1)(ii). Under the regulations, this 60-year period extends to 2064, with the first long-term strategy period ending in 2018. 40 CFR 51.308(f). States must submit their long-term strategies each 10-year period. The first strategy is due in early 2008 and must provide for reasonable progress through 2018.

The 1999 Regional Haze Rule also addressed the BART requirements, in 40 CFR 51.308(e)(1), and provided for the use of alternative measures in lieu of BART in 40 CFR 51.308(e)(2) (discussed more fully in section III.E.1.e. of this preamble below). The Regional Haze Rule was challenged by several petitioners in the U.S. Court of Appeals for the D.C. Circuit. *American Corn Growers et al. v. EPA*, 291 F.3d 1 (D.C. Cir., 2002). The Court generally upheld EPA's approach to improving visibility. However, the Court vacated and remanded the provisions of the rule addressing the determination of BART on a case-by-case basis.

In addition to these nationally applicable reasonable progress requirements, the Regional Haze Rule contains a

special rule for the nine-State region²³ (including tribes) included in the GCVTC, with respect to the Grand Canyon and 15 other Class I areas located on the Colorado Plateau. Under this provision, these States (and tribes) may meet their reasonable progress requirements for the first, long-term strategy period (ending in 2018) with respect to these 16 Class I areas either by (i) meeting the nationally applicable reasonable progress requirements (40 CFR 51.308), or (ii) adopting the recommendations of the GCVTC, once those recommendations were approved by EPA. 40 CFR 51.309. This section also provided that, before the GCVTC recommendations could be approved, an "Annex" to those recommendations pertaining to stationary sources must be submitted to EPA, providing quantitative emissions reduction goals and detailed implementation strategies. The successor organization to the GCVTC - the Western Regional Air Partnership (WRAP) - submitted such an Annex in September, 2000, and EPA approved it in a final rule by notice dated June 5, 2003. (68 FR 33764).

e. Statutory and regulatory background for BART

requirement. Under CAA Section 169A(b)(2)(A), an existing source must install BART if the source was constructed

²³ The nine States are Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, Utah, and Wyoming.

between 1962 and 1977,²⁴ falls within one of 26 categories, has a potential to emit 250 tons or more of any pollutant, and emits "any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility" at a Class I area. The 1999 Regional Haze Rule, among other things, established requirements for implementing BART on a source-by-source basis, in order to address the contribution of BART-eligible sources to regional haze. 40 CFR 51.308(e)(1).

In addition to requirements for implementing BART on a source-by-source basis, the 1999 rule provides States with an option of using an emissions trading program or alternative measure in lieu of requiring source-by-source BART. 40 CFR 51.308(e)(2). States may utilize this trading or alternative option if they demonstrate that it would achieve greater reasonable progress than source-by-source BART. To make this demonstration, States would compare the estimated emissions reductions available from requiring BART on all BART-eligible sources, and the resulting degree of visibility improvement expected. Under the existing section 308(e)(2) States would also have to ensure that the trading or alternative measure applied to all BART-eligible sources

²⁴ Specifically, a source is subject to the BART requirement if it came on-line after August 7, 1962 and construction commenced prior to August 7, 1977.

in all 26 categories, within the State.²⁵

In July 2001, we proposed guidelines for implementing BART on a source-specific basis. These guidelines also contained guidance on how to demonstrate that a proposed alternative to BART would result in greater progress than source-specific BART. (66 FR 38108, Friday, July 20, 2001).

By notice dated May 5, 2004, we re-proposed the BART regulations and guidelines, to comport with the court's findings regarding source-specific BART. The portions of the BART guidelines related to demonstrating that an alternative is better than BART are largely unchanged from the 2001 proposal. (69 FR 25184, 25186).

2. What is the Basis for this SNPR that the Cap-and-Trade Program is "Better than BART" for Affected EGUs?

In today's SNPR, EPA proposes to apply the better-than-BART requirements to the CAIR proposal, as it may affect the 29 States and D.C. in the eastern part of the country. Specifically, EPA proposes that BART-eligible EGUs in any State affected by CAIR may be exempted from BART if that State complies with the CAIR requirements through adoption of the CAIR cap-and-trade programs for SO₂ and NO_x for

²⁵ In section III.E.3 in this supplemental proposal, EPA is proposing to amend section 308(e) to eliminate the requirement to address all 26 categories simultaneously under specific conditions relating to the proposed CAIR.

affected EGUs.

a. Better-than-BART two-pronged test. In our recently re-proposed Guidelines for BART Determinations, we propose a methodology for determining whether a trading program will provide greater reasonable progress than BART. If the geographic distribution of emissions reductions is similar under either program a State may demonstrate the trading program is better than BART by showing that the trading program achieves greater emissions reductions than the source-specific BART program. If it is expected that the trading program would result in a different geographic distribution of emissions reductions than would source-specific BART, visibility impacts must be assessed through a two-pronged test. (69 FR 25184, 25231, May 5, 2004). Although under CAIR the total emissions reductions are greater than source-specific BART would achieve in the CAIR States, our modeling indicates that CAIR would produce greater emissions reductions than BART in most States, but lesser reductions in a few States. Because of this potential for a different geographic distribution of emission reductions, we have assessed the difference between the two programs under the two-pronged visibility impact test.

The first prong is designed to address the "prevention

of any future" impairment element of the CAA section 169A(a)(1) national visibility goal. Under this prong, visibility must not decline at any Class I area, as determined by comparing the predicted visibility impacts at each affected Class I area under the trading program with existing visibility conditions. This prong also protects against the creation of visibility impairment "hot spots" that could conceivably occur as the result of local emissions increases under a trading program.

The second prong of the test is designed to address the "remedying of any existing" impairment element of the CAA section 169A(a)(1) national visibility goal. Under this prong, at the end of the first long-term strategy period in 2018, overall visibility, as measured by the average improvement at all affected Class I areas, must be better under the trading program than under source-specific BART.

We also note that the two-pronged test does not require that the comparison be limited to BART-eligible sources affected by the alternative-to-BART programs. In other words, one way the alternative program may be better than source-specific BART is by controlling emissions from non-BART eligible sources within the affected source categories. This was the case in our approval of the WRAP Annex as better than BART under Regional Haze Rule section 40 CFR

51.309. (See 68 FR 33769).

b. Application of the two-pronged test to the CAIR

proposal. To determine whether CAIR is better than BART, the analysis must address the two main elements of the test. First, we compare the existing visibility situation (using data from the baseline period 2000-2004) to a future where CAIR is in effect to see if any degradation occurs. Second, we compare the visibility improvements resulting from the CAIR cap-and-trade program to visibility improvements expected from the application of source-specific BART in 2015, near the end of the first long-term strategy period in 2018.

In applying the two prongs of the test, we faced some shortcomings in currently available modeling. Under both prongs, we would ideally perform air quality modeling for the situation where CAIR is in effect only in the CAIR region, and source-specific BART is in effect in the rest of the country. This would reflect the best currently available prediction of future emissions, because BART is a federally enforceable requirement of the CAA, and therefore appropriately assumed to be in effect outside the CAIR

region.²⁶

However, the CAIR air quality modeling was based on the simplifying assumption that SO₂ emission reductions would be required nationwide and did not include BART SO₂ controls in place for the non-CAIR region. Additionally, NO_x was controlled in a 31 ½ State region rather than the 29 State region that is covered in the proposed CAIR.²⁷ Finally, because the recently re-proposed BART guidelines are applicable nationally, for that rulemaking we estimated emissions after application of source-specific BART on a nationwide basis. We therefore currently lack modeling of a scenario where BART is applied only outside the CAIR region.

Despite these limitations in currently available modeling, we believe the ideal scenario and the modeling we conducted using available information are similar enough to serve as the basis of this "better than BART" determination. In fact, we anticipate that when we model a scenario combining CAIR requirements in the CAIR region with source-

²⁶ The existence of BART outside the CAIR region would also mitigate concerns of emissions leakage caused by production and emissions shifts from the CAIR region, which might occur if non-CAIR States are subject to substantially less stringent requirements.

²⁷ The modeling assumed NO_x reductions in 5 States where they are not required (Maine, New Hampshire, Rhode Island and Vermont). Additionally it does not require controls in Kansas and the western half of Texas. Kansas and the all of Texas are covered by CAIR.

specific BART in the rest of the country, we will project fewer SO₂ and NO_x emissions than our current modeling indicates. The full rationale for this belief is given in a technical support document (SAQMTSD)²⁸. The remainder of this section gives a brief overview of key aspects of the methodology we used and the results.

We used the Integrated Planning Model (IPM) to estimate emissions expected after implementation of a source-specific BART approach and after implementation of the CAIR cap-and-trade programs for EGUs. This analysis indicates that implementing BART on a source-specific basis would result in SO₂ emissions falling to approximately 6.9 million tons nationally in 2015, then increasing, thereafter²⁹. Under the CAIR trading program, however, SO₂ emissions in 2015

²⁸ See "Supplemental Air Quality Modeling Technical Support Document for the Clean Air Interstate Rule (May 2004)," available in the docket.

²⁹ As discussed in the SAQMTSD, the amount of SO₂ emissions remaining after the application of BART on all BART-eligible EGUs may be somewhat less than 6.9 million tons by 2015. This is so because we modeled emissions reductions only for BART-eligible EGUs over 250 MW and did not include BART-eligible EGUs between 25 and 250 MW. We anticipate that even with any additional SO₂ reductions from these smaller EGUs the amount of remaining SO₂ emissions under the CAIR cap-and-trade program will be sufficiently less than under BART to support our proposed determination that CAIR provides greater visibility improvement than BART for EGUs. We intend to do further analysis of the effect of applying BART controls to EGUs between 25 and 250 MW.

would fall to about 5.3 million tons nationwide, and would continue declining to 4.3 million tons in 2020³⁰. Notably, CAIR leads to SO₂ emission reductions when it starts in 2007 that grow over time. Nationwide, NO_x emissions under a source-specific BART approach would be reduced to 2.7 million tons per year in 2015 and do not decrease thereafter³¹, while under the proposed CAIR trading program NO_x emissions would be 2.2 million tons nationwide in 2015 and 2.3 million tons in 2020.³² Notably, substantial NO_x reductions actually begin in 2010 under the CAIR rule.

We then used the REMSAD air quality model³³ to project

³⁰ Under the cap-and-trade program, SO₂ emissions do not reach their minimum until after the 2015 Phase-2 implementation date because the availability of an existing title IV allowance bank. Sources may use allowances from this bank to emit at higher levels until sometime after 2020 when all of the banked allowances have been used.

³¹ As in the case of SO₂ emissions noted above, the SAQMTSD explains that the application of BART on all BART-eligible EGUs may result in somewhat fewer NO_x emissions than 2.7 million tons by 2015, once emission reductions from BART-eligible EGUs between 25-250 MW are considered. As with SO₂, we anticipate that CAIR would nonetheless provide greater NO_x emission reductions than BART, and we intend to do further analysis of the effect of including BART-eligible EGUs between 25-250 MW.

³² There is much less incentive to bank allowances under the NO_x program so the emissions caps should be met in 2015. Since the emissions cap is not nationwide there is an increase in NO_x emissions in the non-affected States after 2015.

³³ Changes in future visibility were predicted by using the REMSAD model to generate relative visibility changes, then

the visibility impact of these IPM emissions predictions for both the CAIR and the nationwide source-specific BART scenario. Specifically, EPA evaluated the model results for the 20 percent best days (that is, least visibility impaired) and the 20 percent worst days at 44 Class I areas.³⁴ These 44 areas are broadly representative of national visibility conditions, as they are found in States throughout the country, including California and Texas, States on the continental divide, the Pacific Northwest, the Southwest, the Southeast, the Mid-Atlantic, and New England. Thirteen of these Class I areas are within States affected by the CAIR proposal, and 31 Class I areas are outside the CAIR region - 29 in States to the west of the proposed CAIR

applying those changes to measured current visibility data. Details of the visibility modeling and calculations can be found in SAQMTSD.

³⁴ Ambient PM_{2.5} data for the purposes of calculating visibility degradation at Class I areas is collected by the IMPROVE network. There are currently 110 IMPROVE monitoring sites operating at Class I areas. For this analysis, future year visibility values were calculated at the 44 IMPROVE sites which had complete data in 1996. Since the base year meteorology used in the REMSAD modeling is from 1996, ambient data from 1996 is needed to be able to apply the model results. It is necessary to know which days make up the 20 percent best and worst days so that the model outputs can be calculated on the same days. For a Class I area without ambient data in 1996, there is no way to match up the model predicted changes in visibility with the ambient data from the 20 percent best and worst days. There were only 44 IMPROVE sites (at Class I areas) with complete data for 1996.

region, and 2 in New England States northeast of the CAIR region. We also modeled expected visibility for the future base case, which has lower emissions than we have today overall (that is, we examined expected emissions levels in 2015 without either BART or the trading program, but including emissions reductions anticipated from other requirements.) This is a more stringent way of considering degradation, given we are primarily concerned about degradation relative to the existing visibility situation.

i. First prong: Visibility will not decline at any class I area. The modeling predicts that the CAIR cap-and-trade program will not result in degradation of visibility, compared to existing visibility conditions, at any of the 44 Class I areas considered. In each of the 44 areas - the 13 within the proposed CAIR region and the 31 outside of it - visibility is expected to improve or at worst remain unchanged. Details of these results, for the 20 percent worst days and the 20 percent best days are contained in SAQMTSD. We only had modeling representing nationwide SO₂ emission reductions, including some relatively small amount of SO₂ emission reductions occurring in the West³⁵. Since

³⁵ Although the CAIR proposal would not include emissions reductions requirements for western States, BART requirements will otherwise apply in these States and achieve some level of SO₂ reductions.

the western SO₂ emissions reductions are relatively small, EPA believes they will not significantly impact the conclusions of this analysis.

Based on these results and other analysis presented in the SAQMTSD, we believe the CAIR impact on emissions passes the first prong of the two-pronged test by not causing degradation of visibility at any Class I area.

ii. Second prong: Average visibility for all affected Class I areas will improve. The second prong of the better-than-BART test is to analyze whether the CAIR cap-and-trade programs result in greater overall improvement in visibility, as compared to source-specific BART.

For Class I areas in the proposed CAIR region, our analysis indicates that proposed CAIR emissions reductions in the East produce significantly greater visibility improvements than source-specific BART. Specifically, for the 15 Eastern Class I areas analyzed, the average visibility improvement (on the 20 percent worst days) expected solely as a result of the CAIR is 2.0 deciviews (dv), and the average degree of improvement predicted for source-specific BART is 1.0 dv. Therefore, the proposed CAIR is substantially better than BART – indeed, the proposed CAIR provides more than twice the visibility

improvement benefits - for Eastern Class I areas.³⁶

Similarly, on a national basis, the visibility modeling shows that for the 44 class I areas evaluated, the average visibility improvement, on the 20 percent worst days, in 2015 was 0.7 dv under the proposed CAIR cap-and-trade programs, but only 0.4 dv under the source-specific BART approach.

We therefore believe that these results, in combination with the other analysis in the SAQMTSD, demonstrate that the second prong of the better-than-BART test is met.

Because both prongs of the test are met, EPA proposes to conclude that the proposed CAIR cap-and-trade program is better than BART for BART eligible EGUs within the proposed CAIR region. Therefore, States that adopt the model cap-and-trade programs would not be required to implement source-specific BART for their EGUs.

³⁶ We note that the modeling we used to represent the CAIR proposal was more stringent than the proposed CAIR in some ways (because it assumed SO₂ reductions in the West and NO_x reductions in the Northeast, which the proposed CAIR does not require) and less stringent in others (because it does not include NO_x controls for Kansas and western Texas, which are required in the proposed CAIR). As explained in the SAQMTSD, we anticipate that these differences are either too small to affect the analysis, or are mitigated by the fact that source-specific BART will produce SO₂ and NO_x reductions in the non-CAIR States in which our modeling attributed emissions reductions to CAIR. Therefore, we believe that the air quality modeling supports our better-than-BART determination.

3. What Changes to the Regional Haze Rule Provisions for Alternatives to BART are Proposed?

The preceding discussion applied the provisions of section 40 CFR 51.308(e)(2) of the Regional Haze Rule which allows States to determine that a trading program or other alternative measure may be substituted for individual BART applications for all sources subject to the BART requirement.

Because the proposed CAIR allows States to choose how to achieve the required emissions reductions, and does not mandate participation in the EPA-administered cap-and-trade program for EGUs, some States may wish to satisfy their proposed CAIR requirements through controls on sources other than EGUs, or through controls on EGUs without using the CAIR cap-and-trade programs (such as through an in-State only trading program). To the extent that these control obligations fall on BART-eligible sources, the State may wish to demonstrate that these controls are better than BART, and therefore satisfy the source-specific BART requirements for those sources.

To accommodate the various approaches States may wish to take in complying with the proposed CAIR and making the better-than-BART determinations, we propose to add a new section to the alternative-to-BART provisions of the

Regional Haze Rule. We are not proposing to change or revise the provisions contained in section 308(e)(2), which apply to States that develop their own cap-and-trade program or other alternative measure to BART. Therefore, we are retaining 308(e)(2) without revision, except for the addition of a proposed cross-reference to the new provision for these BART-alternative rules proposed today. Section 308(e)(2) will continue to apply to trading programs or other alternatives to BART which do not involve the proposed CAIR cap-and-trade programs. These might include in-State only trading programs, or future regional trading programs developed by States and tribes through Regional Planning Organizations.

We propose to add a new section 308(e)(3), which provides that for any of the 29 States and D.C. in the CAIR region, implementation of the CAIR cap-and-trade programs to fulfill the proposed State emissions reduction obligations under the CAIR qualifies as a "better than BART" alternative. This alternative is available only to States that subject all of their EGUs to the cap-and-trade programs. As explained above, modeling to support the proposed determination establishes that the cap-and-trade programs would result in greater reasonable progress than would source-specific BART for EGUs. Therefore, a better-

than-BART demonstration would not be required of States that choose this option.

We also propose to renumber current sections 308(e)(3) and (4) to read 308(e)(4) and (5), respectively. These sections provide for continuing regulation of BART-eligible sources under the general regional haze provisions after BART is satisfied, and for source-specific exemptions from the Administrator.

4. What Effect Does the CAIR Cap-and-Trade Program Have on Source-specific BART Based on Reasonably Attributable Visibility Impairment?

As we explained in our recent re-proposal of the BART guidelines (69 FR 25184, May 5, 2004), when a State utilizes an alternative measure such as an emissions trading program in lieu of requiring BART on specific sources, the requirement for BART is not satisfied until the alternative measure reduces emissions sufficiently to make "more reasonable progress than BART." Thus, in that period between implementation of an emissions trading program and the satisfaction of the overall BART requirement, an individual source could be required to install BART for reasonably attributable impairment under 40 CFR 51.302. The Regional Haze Rule contains a provision allowing for "geographic enhancements" to address the interface between a

regional trading program and the requirement under 40 CFR 51.302 regarding BART for reasonably attributable visibility impairment. (See 40 CFR 51.308(e)(2)(v)).

We note that the same framework applies in the context of the proposed CAIR cap-and-trade programs. That is, until the emissions reductions requirements in today's SNPR are fully implemented in 2015, the possibility exists that a certification of impairment by a Federal Land Manager (FLM) could trigger a requirement for a State to determine whether the impairment is "reasonably attributable" to a single source or small group of sources, and if so to make a source-specific BART determination. We request comments on whether a "geographic enhancement" (for example, an adjustment to the State's allowance budget) would be appropriate, and whether such enhancement mechanisms should be determined by EPA on a national basis, or individually by affected States.

We also note that the WRAP, as part of its voluntary emissions milestones and backstop SO₂ cap-and-trade program under Regional Haze Rule section 309 has adopted policies which target use of the §51.302 provisions by the FLMS. In this case, for the five States in the WRAP program, the FLMS have agreed that they will certify reasonable attributable impairment only under certain specific conditions. Under

this approach, the FLMS would certify under 40 CFR 51.302 only if the regional trading program is not decreasing or has not decreased sulfate concentrations in a Class I area within the region. Moreover, the FLMS will certify impairment under 40 CFR 51.302 only where: (1) BART-eligible sources are located "near" that class I area and (2) those sources have not implemented BART controls. In addition, the WRAP is investigating other procedures for States to follow in responding to a certification of reasonably attributable impairment if an emissions trading approach is adopted to address the BART requirement based on the sources' impact on regional haze.

We request comment on whether such an approach would be appropriate for the proposed CAIR cap-and-trade programs.

F. Tribal Issues

As discussed in our January 2004 proposal, tribal implementation of approved CAA programs is optional. That is, under CAA section 301(d) as implemented by the Tribal Authority Rule (TAR), eligible Indian tribes may implement all, but are not required to implement any, programs under the CAA for which EPA has determined that it is appropriate to treat tribes similarly to States. Tribes may also implement "reasonably severable" elements of programs. (40 CFR 49.7(c)). In the absence of tribal implementation of a

CAA program or programs, EPA will utilize Federal implementation for the relevant area of Indian country as necessary or appropriate to protect air quality, in consultation with the tribal government. State implementation plans are generally not applicable in Indian country.

With very few exceptions, Indian country is not home to the types of air pollution sources potentially affected by this rule - neither EGUs, nor other large sources of NO_x or SO₂ that could be controlled in order to meet emission reduction requirements.

Despite these legal and factual considerations which indicate that today's proposal would not generally immediately affect tribes, tribes have raised valid concerns about the rule's future implications. These implications arise from the fact that the cap-and-trade program by definition is designed to cap emissions over a broad geographic area and constrain these emissions into the future. Indian country lands are included within these broad areas. Some tribes may choose to pursue a path of economic development which may include future sources of air pollution.

The TAR contains a list of provisions for which it is not appropriate to treat tribes in the same manner as

States. 40 CFR 49.4. The CAIR proposal is based on the States' obligations under CAA 110(a)(2)(D) to prohibit emissions which would contribute significantly to non-attainment in other States due to pollution transport. Because CAA 110(a)(2)(D) is not among the provisions we determined to be not appropriate to apply to tribes in the same manner as States, the CAIR is applicable to tribes. However, among the CAA provisions not appropriate for tribes are "[s]pecific plan submittal and implementation deadlines for NAAQS-related requirements..." 40 CFR 49.4(a). Therefore, tribes are not required to submit implementation plans under the CAIR. Instead, the CAIR will be implemented as necessary or appropriate in Indian country, either through voluntary Tribal Implementation Plans or Federal Implementation Plans developed in consultation with affected tribes.

The EPA believes new sources that locate in Indian country should be subject to the program in the same manner as any new source located outside of Indian country. If they were not, emissions from new Indian country sources could jeopardize the environmental goals of PM_{2.5} and ozone attainment on which today's rule is based. It could also conceivably result in undue pressure for energy and economic development in Indian country, depending on allowances

prices and a variety of other economic and regulatory factors.

At the same time, some tribal representatives have voiced another set of concerns to EPA. In their view, requiring new sources in Indian country (which may be tribally owned) to either obtain an allocation of allowances from the State where the tribe is located, or to purchase allowances in order to operate is unfair, for several reasons. These include: (1) that the concept that budgets for Indian country should be derivative from State budgets may offend notions of tribal sovereignty and autonomy; (2) that Federal policy over the course of U.S. history has hindered tribal economic development and this inequity should not be continued by basing allocations on existing source emissions; (3) that some of the tribes that have contributed substantially to the economy through extractive industries have not shared in the economic benefits, including residential electrification; and (4) that Indian country areas may have suffered the detrimental effects of air pollution from the sources from which they would be required to buy allowances in order to construct new sources.

One approach that might be used to address these concerns would be to develop a Federal set-aside of

allowances for new sources in Indian country. The WRAP, in developing a backstop cap-and-trade program for SO₂ under section 40 CFR 51.309 of the Regional Haze Rule, addressed this same set of concerns. The WRAP is a unique partnership of 13 western States, tribes, and Federal agencies. The WRAP Board comprises equal numbers of State governors and tribal leaders, or their designees, and decisions are made by consensus.

Based on tribal input, the WRAP included provisions to address the tribal concerns delineated above including a tribal set-aside of 20,000 tons of SO₂ per year. This amount was not the product of any single formula, but was negotiated within the WRAP based on a number of factors. One important consideration was that because new EGUs and other major sources would be subject to pre-construction permitting under New Source Review (NSR) or Prevention of Significant Deterioration (PSD) rules, as well as New Source Performance Standards (NSPS) or Maximum Achievable Control Technology (MACT), SO₂ emissions per MW or other unit of production would be considerably lower than for older, less efficient plants. Therefore, although 20,000 tons represents only about 4 percent of the 9-State cap for 2018, it would enable the installation of a much larger percentage of new capacity.

The WRAP's cap-and-trade program will only come into existence if voluntary efforts and current requirements fail to meet the agreed upon emissions reduction "milestones." Therefore, the tribal set-aside, like all tradable allowances under this program, will only exist if the milestones are not met sometime between 2003 and the end of the first long-term strategy period in 2018. In light of the uncertainty of this event, and of the difficulty of reaching consensus among the more than 200 tribes in the affected region, the WRAP did not attempt to establish the mechanism by which the tribal set-aside would be allocated among tribes. Rather, it was agreed that this mechanism would be determined within one year of the date the trading program was triggered, by a determination that the milestones had been exceeded. This would provide for the distribution of all allowances by the time of trading program implementation.

Tribal participants in the WRAP stipulated that the tribal set-aside allocations would be available to tribes for use by new sources, for sale to generate revenue, or to retire for the benefit of the environment. The EPA concurred with these uses in the preamble to the final WRAP Annex rule (68 FR 33778, June 5, 2003). We also agreed that tribal participation in the Annex, including the tribal set-

aside, is not dependent on whether the State in which the tribe is located participates. For the few sources currently in existence in Indian country within the WRAP region which are eligible for the program based on SO₂ emissions, the WRAP would provide for allowance allocations within the existing-source cap. These sources would not need to draw upon the tribal set-aside for the allowances to cover their emissions.

There are no emission sources in Indian country of which we are aware in the 29-State region that could be affected by the January 2004 proposal. (We request comment regarding the existence of any such sources of which we are unaware). Therefore, the only way tribes in this region could receive allowances would be through a set-aside.

The approach used by the WRAP could provide a template for the CAIR for both SO₂ and NO_x set-asides for tribes. This would raise a number of issues, some identical to those faced by the WRAP and some with different considerations. For example, one difference is that because the CAIR is not a backstop cap-and-trade program, any allowance set-aside for tribes would either result in a corresponding decrease in the present allowances of existing sources, or increase the overall level of the cap.

The WRAP example of establishing a tribal set-aside

provides one possible approach to addressing tribal concerns. If EPA were to determine that a tribal set-aside were appropriate, some issues raised in developing the set-aside would include: (1) what method to use to determine the SO₂ and NO_x set-asides, for example through negotiation or by a formula, (2) whether the set-aside would be in addition to or part of the allocations proposed in our January 2004 proposal, and (3) how the tribal set-aside would be allocated or distributed among tribes, for example on a first-come first-served basis, by an allocation formula, or some combination of approaches.

We seek comment on whether a tribal set-aside is necessary or appropriate; if so, how it should be structured; whether other approaches might better address the tribal concerns identified above. We also seek comment on any other implications the proposed CAIR may have for tribes. We remain committed to fulfilling our obligation to consult with tribes, and will continue to do so as we address these issues.

IV. Model Cap-and-Trade Rule

A. Background and Purpose of the Model Rules

This section of today's action proposes model trading rules - one for SO₂ and one for NO_x - that States will adopt if they wish to participate in the EPA-managed, EGU cap-and-

trade program to achieve the emissions reductions of the proposed CAIR. This fulfills the commitment made in the January 2004 proposal.

Today's action proposes a NO_x and a SO₂ model cap-and-trade rule for public comment. At the time of signature of today's SNPR, EPA had not yet reviewed full public comment on the January 2004 proposal, which solicited comment on some model rule concepts. The EPA intends to respond to comments received on the January 2004 proposal and today's SNPR when it promulgates the final rule.

The NO_x and SO₂ model rules incorporate the experience gained through the implementation of several cap-and-trade programs (i.e., the CAA title IV SO₂ Acid Rain Program, the Ozone Transport Commission Regional NO_x Program, and the NO_x SIP Call), lessons learned from other trading programs like the Regional Clean Air Incentives Market (RECLAIM), as well as two workshops which EPA held to inform this rulemaking. These workshops, held in July and August of 2003, provided a forum for States and multi-State air planning organizations to share with EPA what has worked well, what may not have worked well, and what could be improved. (The EPA website provides a summary of the comments received from these workshops at <http://www.epa.gov/airmarkets/business/noxsip/atlanta/atl03>).

html). Workshops such as these played an important role in the development and implementation of the NOx SIP Call and aided in the development of this proposed rule.

This section describes: the advantages of adopting the model trading rules; the requirements for those who choose to adopt the model rules; the flexibility that States have in developing their cap-and-trade rules; and, lastly, a subpart-by-subpart explanation of the model rule provisions that highlights key elements and aspects unique to either the SO₂ or NO_x programs.

1. Who May Adopt the Model Rules and What Are the Advantages of Adopting New Model Rules?

States may choose to participate in the EPA-managed cap-and-trade programs, which are a fully apposable control strategy for achieving all of the emissions reductions required under today's proposed rulemaking, in order to achieve the mandated emission reductions in a highly cost-effective manner. States that wish to reduce emissions by controlling EGUs (which modeling shows can make additional highly cost-effective emission reductions) through a regionwide cap-and-trade approach may simply adopt the model rules and comply with the requirements for Statewide budget demonstrations detailed in section III. States that elect to achieve the required reductions by regulating other

sources or using other approaches, should refer to section III for alternate State requirements.

Today's action proposes that States that choose to achieve the mandated emission reductions through the EPA-managed cap-and-trade programs are also required to adopt both the SO₂ and NO_x model rules. Requiring States to participate in both the SO₂ and NO_x programs assures that compliance is more readily determinable, and creates incentives for sources to develop comprehensive control strategies for both pollutants³⁷.

Advantages of Adopting the Model Rules

EPA is proposing the use of regionwide cap-and-trade programs because market-based approaches have proven to be both environmentally effective and cost-effective. The advantages of a well-designed cap-and-trade system include:

- Control of emissions to desired levels under a fixed cap that is not compromised by future growth;
- High compliance rates;
- Lower cost of compliance for individual sources and the regulated community as a whole;

³⁷ Note that under the proposed CAIR, because Connecticut is only required to reduce NO_x emissions in the summertime to address its impact on downwind 8-hour ozone nonattainment areas, Connecticut would not be required to adopt the CAIR NO_x model rule - which focuses on annual NO_x reductions - unless the State volunteers to make annual NO_x reductions.

- Incentives for early emissions reductions;
- Promotion of innovative compliance solutions and continued evolution of electricity generation and pollution control technology;
- Flexibility for the regulated community (without resorting to waivers, exemptions and other forms of administrative relief that can delay emissions reductions);
- Direct legal accountability by sources for compliance;
- Coordinated program implementation that efficiently applies administrative resources while enhancing compliance; and
- Transparent, complete, and accurate recording of emissions.

These benefits result primarily from the interplay of a rigorous cap-and-trade framework, flexibility in compliance options, and the monetary incentives associated with avoided emissions in a market-based system. The model rules are designed around elements that are essential to a successful cap-and-trade program. These include:

- Simplicity (e.g., clear applicability thresholds, allocation formulas, trading rules and restrictions, measurement options and procedure, reporting requirements, and penalty assessment);

- Accountability (e.g., accurate measurement of emissions, complete and timely emission reporting, and automatic penalties for noncompliance);
- Transparency (e.g., full and open disclosure of programmatic elements, compliance data, allowance ownership, and environmental progress); and
- Predictability and Consistency (e.g., to provide consistent program implementation over time and a long compliance planning horizon that allows long-term, innovative strategies).

States collectively benefit from the adoption of the model rules by improving the efficiency and clarity of the CAIR's implementation.

In addition, States adopting the CAIR NO_x and SO₂ model rules will benefit from improvements to the rule mechanics that originated from the stakeholder input during the implementation of the Title IV, OTC, and NO_x SIP Call cap-and-trade programs, as well as the EPA-managed "lessons learned" workshops held in 2003. Today's proposed NO_x and SO₂ model rules not only incorporate these refinements, but are designed to parallel the existing rules in parts 96 and 97 (see sections IV.A.4 and IV.B below) to allow States that have already codified all or part of these regulations to transition smoothly into both the CAIR NO_x and SO₂ programs.

2. Requirements for Adopting the Model Cap-and-Trade Rules

Except as noted in section IV.A.3, States that choose to participate in the EPA-managed cap-and-trade programs must adopt the complete model cap-and-trade rules in order to participate in the program and to have it constitute an appposable remedy for achieving the mandated SO₂ and NO_x emission reductions. (Section III discusses the requirements for States, including those that wish to comply with the CAIR through alternatives other than the EGU-based emission reduction approach proposed in today's action.) This ensures that all participating sources, regardless of which State in the CAIR region they are located, are subject to the same rules. Further, requiring States to use the complete model rules provides for accurate and certain quantification of emissions, which are - when reflected in allowances - a valuable commodity on the trading market, and thereby maintains the financial integrity of the allowance trading market. In turn, the integrity of this emissions measurement system and the trading market ensures that the environmental goals are met.

States are required to achieve all of the mandated emissions reductions from large EGUs if they wish to participate in the EPA-managed cap-and-trade programs. (In other words, States that achieve all or part of the

emissions reductions from large non-EGUs, may not participate in the EPA-managed cap-and-trade programs.) More specifically, the rules must apply to all fossil fuel-fired boilers and turbines serving an electrical generator with a nameplate capacity greater than 25MW and producing electricity for sale (except for certain cogeneration units). All units that meet this generation size threshold would be affected by the proposed CAIR with no exemptions for small, low-emitting units. (The EPA is not proposing an exemption for units that meet the generation applicability threshold but emit less than 25 tons of NO_x, as done in the NO_x SIP Call.) The EPA anticipates that these small, low-emitting units will take advantage of special monitoring and reporting procedures in part 75 that simplify the requirements for low mass emitting ("LME") units. In general, these procedures relieve much of the administrative burden and, therefore, compliance costs, for LME units by allowing them to use conservative emissions estimates in lieu of continuous emissions monitoring. In providing streamlined monitoring and reporting options, EPA can accurately and cost-effectively account for the emissions, even at low emission levels, and allow them to participate in the cap-and-trade programs.

Sources that produce usable thermal energy, such as

steam, in addition to generating electricity are known as "cogeneration units." Only a cogeneration unit that (i) serves a generator greater than 25 MW, (ii) sells at least 1/3 of its potential electrical output capacity and at least 25 MW of electricity, and (iii) meets certain operating and efficiency criteria is considered an EGU and covered by the EPA-managed cap-and-trade programs. (See section IV.B.1 for a proposed clarification to the definition of a cogeneration unit.)

Once a unit is classified as an EGU for purposes of this rule, the unit will remain classified as an EGU regardless of any future modifications to the unit. If a unit serving a generator that initially does not qualify as an EGU (based on the nameplate capacity) is later modified to increase the capacity of the generator to the extent that the unit meets the definition of EGU, this unit will become an EGU for purposes of this rule. This approach is proposed to prevent avoidance of regulation by initially constructing units that are below the size threshold, and then upgrading above the size criteria.

3. Flexibility in Adopting the Model Cap-and-Trade Rules

It is important to have consistency from State-to-State when implementing a multi-State cap-and-trade program to ensure that the intended emissions reductions are

achieved and that the compliance and administrative costs are minimized. However, EPA believes that some differences, such as allowance allocation methodologies for NOx allowances, are possible without jeopardizing the environmental goals of the program.

a. Allocation of NOx and SO2 allowances. Each State participating in the EPA-managed cap-and-trade programs must develop a method for allocating, or distributing, (to the extent that the State has allowances available to allocate) NOx allowances equal to its CAIR EGU budget. For NOx allowances, States have the flexibility to allocate their EGU NOx budget to individual units however they choose. For SO2, as noted in the approach outlined in the January 2004 proposal, States do not have discretion in their allocation approach since the proposal relies on title IV SO2 allowances which have been already allocated in perpetuity to individual units by title IV of the CAA. Today's action proposes essential elements that would be required for each State's Nox allocation method (e.g., the deadlines by which each State must complete and submit to EPA their unit-by-unit allocations for inclusion into the electronic data systems), describes areas in which States have flexibility, and provides an example allocation approach.

i. Aspects unique to SO2 allowance allocations. The CAIR

SO₂ allocations differ from the NO_x approach because the title IV SO₂ allowances - the proposed basis for the CAIR - have already been allocated in perpetuity to specific units. Only units that were listed or described in the 1990 CAA Amendments are allocated allowances. Some units that are currently affected by the today's proposed rule title IV Acid Rain Program are not allocated title IV SO₂ allowances and instead must acquire all of the allowances they need in the marketplace.

ii. Required aspects of a State allocation approach. While it is EPA's intent to provide States with as much flexibility as possible in developing allocation approaches, there are some aspects of State allocations that must be consistent for all States. Today's SNPR proposes that all State allocation systems are required to include specific provisions that establish when States notify EPA and sources of the unit-by-unit allocations. These provisions would create: (1) the minimum lead-time for a State to notify a source of its allocations; and (2) the deadline for each State to submit to EPA its unit-by-unit allocations for processing into the electronic data systems.

Today's action proposes to require States to submit unit-by-unit allocations no less than 3 years prior to January 1 of the allowance vintage year. Requiring States

to provide a minimum amount of notification ensures that an affected source - regardless of the State in the CAIR region in which the unit is located - would have sufficient time to plan for compliance. Finalizing allowance allocations less than 3 years in advance of the compliance year may reduce a CAIR unit's ability to plan for compliance and, consequently, increase compliance costs. Shorter notification periods may also prevent CAIR units from participating in allowance futures markets, a mechanism for hedging risk and lowering costs. (Note: New units will not have allowances 3 years in advance of their first year of operation.) In addition, States would be required to submit the unit-by-unit allocations to EPA by a specific date for sources in their State. This allows EPA to efficiently administer the program and ensure a fair and competitive market for allowances across the region.

These minimum requirements would apply to the NO_x allocation approach and would not be relevant for SO₂, which relies on title IV allowances.

iii. Flexibility and options for a state allowance

allocations approach. Allowance allocation decisions in a cap-and-trade program are largely distributional issues, as economic forces would be expected to result in economically efficient and environmentally similar outcomes.

Consequently, for CAIR NO_x allowances, States would be given latitude in developing their allocation approach.

Allocation methodology elements for which States will have flexibility include:

- The cost of the allowance distribution (e.g., free distribution or auction);
- The frequency of allocations (e.g., permanent or periodically updated);
- The basis for distributing the allowances (e.g., actual heat-input or actual power output); and,
- The use of allowance set-asides (e.g., new unit set-asides or energy efficiency set-asides).

These points are discussed immediately below.

Cost of Allowance Distribution

Allowances may be distributed by either providing them at no cost (i.e., a "free distribution"), offering them for sale to bidders (i.e., an "auction"), or some combination of the two. Today's proposal allows the State to decide which approach is best for their circumstances.

Auctions: In general, auctions ensure all parties, including the general public, have access to allowances and are considered to be economically efficient since sources would bid their perceived values for allowances. It is possible to auction all allowances under a cap, or have a

hybrid approach that auctions some portion of the pool that could change over time. The title IV Acid Rain Program is an example of a hybrid in that it reserves 2.8 percent of available allowances for an auction and distributes the remainder for free. Auctions may also vary in the frequency with which they are held. Strict procedures must be established for auctions and, in the context of the proposed CAIR, States would be responsible for implementing these rules. Allowance auctions are typically, but are not required to be, open to any person, including sources or third-party entities, that can comply with the auction protocols. (In general, auction protocols establish key procedures for bidding, the bidding schedule, a bidding mechanisms, and requirements for financial guarantees.)

Auctions treat existing and new sources in a similar fashion. Sources performing costly retrofits to reduce emissions would then also have to pay for allowances for their remaining emissions. Some other benefits of auctions include the fact that they eliminate the permanent right to emit and can provide distortion-free revenues to States.

Free Distribution: A free distribution system provides allowances to any entity, typically the affected sources, as determined by the State. When using a free distribution, it is necessary to establish both (1) the basis for determining

each unit's share of the allowance pool, and (2) the frequency with which the allowances are allocated. The title IV Acid Rain Program is an example of a free, one-time distribution (with a small percentage reserved for auction, as mentioned above) that uses the product of historical heat input and specified emission rates (i.e., a permanent, heat input-based system) to determine each unit's share of the pool.

Allocating allowances for free could lessen the financial impact of the program on the affected sources which already bear the compliance costs, but would not be expected to affect the sources' output decisions, or labor and pricing decisions. It would also give States the ability to determine the initial allowance recipients.

Frequency of Allocating Allowances

Allowances may be allocated once (i.e., a "permanent" allocation) or periodically recalculated (i.e., "updated") based upon some protocol. When deciding upon the frequency of the allocations, any of the options concerning the cost of distribution and the basis for apportioning the pool may be used. However, it is important to consider the practical implications of using complex protocols, such as data that must undergo time-consuming quality assurance, when frequently updating.

Permanent Systems: Permanent systems allocate all of the allowances at the beginning of the program. They provide long planning horizons for affected sources that receive an allocation.

Permanent allocations do not create additional incentives for those units that receive allowances to change their future behavior to garner more allowances (e.g., increase utilization). Furthermore, because permanent systems are based on a historic baseline, they would not reflect changes in the industry going forward. For instance, retired units would continue receiving allowances. Additionally, a pure permanent allocation system would not provide for allowances to new affected units that begin operations after the allocation of allowances and instead would require them to obtain allowances from the market. The title IV Acid Rain Program is an example of a primarily permanent approach that auctioned 2.8 percent of the allowances to provide new sources an additional mechanism for obtaining allowances.

Updating Systems: Updating systems periodically recalculate and reallocate allowances. These include: the ability to reflect future changes in the power sector; the ability to impact the future generation mix; and, an inherent mechanism for new generators to gain access to free

allowances. An updating system that bases the allowance distribution on power output provides an additional incentive beyond the inherent reward for efficiency provided by the market for existing units to improve their generation efficiency and for new units to employ the most efficient technology available.

Updating methods may provide a slight subsidy for units to either generate (for output-based systems) or consume more fuel (for input-based systems). Should this potential subsidy result in an increase in electricity production, there would be a corresponding slight distortion (lowering) of the price of electricity as well as an incentive for older units to continue generating. (Note that under a capped program, incentives to generate will not impact the total emissions of the capped pollutants.)

There are additional aspects of the allocation frequency that are significant in an updating system. These include:

- The length of the period for which allocations are determined (e.g., the allocations may be calculated for one year or for 5 years at a time); and
- The length of the notification time (e.g., allocations are determined and announced 3 years into the future, 5 years into the future).

In general, the longer the allocation period (i.e., the less frequent the updating), the more the system will resemble a permanent approach.

Allowance Set-Asides

Allocation methodologies may include a reserve of a certain number allowances from within the cap to create a "set-aside" of allowances. This reduces the number of allowances available to the existing affected sources. Set-asides may be used for a variety of purposes including encouraging certain behaviors (e.g., demand-side energy efficiency and renewable energy set-asides) and mitigating potential disadvantages in the marketplace (e.g., auction set-asides or, as discussed below, set-asides available to units that come online after the program implementation date). In the context of the proposed CAIR, States (if they choose to have set-asides) would be responsible for developing and implementing protocols to distribute set-asides. Set-asides may have provisions that distribute unused allowances back to affected sources should the set-asides not be fully utilized.

New unit set-asides create a pool of allowances that are available to units that come online after the allowances have been allocated. This may mitigate potential barriers to entering the market for new units. Should a new unit be

included in an allocation approach, it is necessary to determine how the allowances will be distributed to the new units from the pool. Common approaches include basing each unit's share on either heat input or power output.

Depending upon the type of performance measurement used, slightly different incentives may be created. For example, if the new unit's power output were used to distribute the set-aside, sources would find an additional incentive - beyond the incentive for efficiency inherent in the market - to employ more efficient generation technology. (Note that the allocation example provided below includes a new unit set-aside with a hybrid input/output distribution metric.)

Basis for Determining Share of Allowance Pool

For any allocation option, other than an allowance auction, it is necessary to establish the primary parameter that will be used to determine each unit's share of the allowance pool. This parameter is typically a performance measure such as:

- Measured or potential emissions (in tons) from the unit;
- Historical or current measured heat input (in mmBtu) of the unit; or
- Measured or potential production output (in terms of electricity generation and/or steam energy) of the

unit.

Any of these parameters may be used to distribute allowances, regardless of whether it is a permanent or updated system. Other factors, such as fuel type or emission rates (e.g., pounds of pollutant per mmBtu heat input or pounds of pollutant per MWhr of power output) may be used with the above parameters. As mentioned earlier in this discussion of allocation options, the choice of the parameter for distributing allowances can influence the behavior of affected sources in an updating system.

iv. Example allowance allocation system. Included below is an example (offered for informational guidance) of an allocation methodology that includes allowances for new generation and is administratively straightforward. The method involves input-based allocations for existing fossil units, with updating to take into account new generation on a modified output basis. This methodology is offered as an example, as individual States would make their own choice regarding what type of allocation method to adopt for NO_x allowances.

Initial allocations for existing sources could be made for the first control periods at the start of the program on the basis of heat input. After the first 5 years, the budget would be distributed on an annual basis, taking into

account data from new units.

As new units enter into service and establish a baseline, they begin to pick up allowances in proportion to their share of the generation. Allowances allocated to existing plants slowly decline as their share of total heat input decreases with the entry of new plants. In this EPA example methodology, existing units as a group would not update their heat input. This would eliminate the potential for a generation subsidy (and efficiency loss) as well as any potential incentive for less efficient units to generate more. This methodology would also be easier to implement since it would not require the updating of existing units' baseline data. Retired units would continue to receive allowances indefinitely, thereby creating an incentive to retire less efficient units.

Through this EPA example methodology, new units as a group would only update their heat input numbers once - in the initial baseline period when they start operating. This would eliminate any potential generation subsidy and be easier to implement, since it would not require the collection and processing of data needed for regular updating.

The EPA believes that allocating based on heat input data (rather than output data) for existing units is

desirable because accurate protocols exist for monitoring this data and reporting it to EPA, and several years of certified data are available for most of the affected sources. This heat input data for existing units could be adjusted by multiplying it by different factors based on fuel-type, reflecting the inherent higher emissions of coal-fired plants. For example, factors could be calculated based on average historic NO_x emissions rates by fuel type (i.e., coal, gas and oil) throughout the proposed CAIR region for the years 1999-2002 at 1.0 for coal, 0.4 for gas and 0.6 for oil.

However, allocating on the basis of input for new sources would serve to subsidize less-efficient new generation. For a given generation capacity, the most efficient unit would have the lowest fuel input or heat input. Allocating to new units based on heat input may encourage the building of less efficient units since they would get more allowances than an efficient, lower heat input unit. The modified output approach, as described below, would encourage new, clean generation and would not reward inefficient or higher emitting new units.

Allowances would be allocated to new units on a "modified output" basis. The new unit's modified output would be calculated by multiplying its gross output by a

heat rate conversion factor of 8,000 btu/kWh. The 8,000 btu/kWh value for the conversion factor is a mid-point between expected heat-rates for new gas-fired combined cycle plants, new pulverized coal plants, and new IGCC coal plants (based upon assumptions in EPA's economic modeling analysis. See documentation for IPM at <http://www.epa.gov/airmarkets/epa-ipm/attachment-h.pdf>). In addition, this would create consistent incentives for efficient generation (rather than favoring new units with higher heat-rates). For new cogeneration units, their share of the allowances would be calculated by multiplying (1) the sum of their electric output and one half of their equivalent electrical output energy for the unit's process steam, times (2) 8,000 btu/kWh conversion factor.

Five years after entering the CAIR cap-and-trade programs, new units would be incorporated into the calculations for allocations to all affected units. After 5 years of participating in the cap-and-trade programs, new units would have an adequate operating baseline of heat input data. The average of the highest 3 years from these 5 years would be used to calculate the heat input value that the new unit would use to receive allowances from the pool of allowances for all sources.

In this example, only fossil units would be included in

the updating process. This is administratively more straightforward and would comprise the vast majority of expected new generation. Alternately, all new generating units could be included in the updating process, which would provide incentives for all new generation (such as renewables, hydro, nuclear). To include such non-fossil units as part of the program would involve clearly defining the entities which could participate (e.g., application procedures, size requirements, and boundaries of included generation, since there is no clear analog to discrete fossil "units").

New units that have entered service, but have not yet established a baseline output and have not yet started receiving allowances through the update, could receive allowances each year from a new source set-aside. In this example methodology, EPA has described a new source set-aside representing 2 percent of the State's emission budget.

Allowances in the new source set-aside could be distributed in a number of different ways. For example, as described in today's proposed model rules, the new source allowances could be distributed based on a unit's utilization/output and the unit's NSPS rate limitation as proposed in the Clear Skies Act of 2003. Because the proposed NSPS rates vary across fuel types, this allocation

method could provide new plant investors with varying incentives depending upon the fuel type. While this set-aside would help new sources relative to a situation with no set-aside, because the demand for allowances for future sources is unknown, it is difficult to know beforehand what should be the appropriate size of the set-aside pool.

Another potential approach for distributing allowances from a new source set-aside is using a single emissions rate for all new plants and a plant specific utilization or power output level to calculate allowance allocations for new units before they begin receiving allowances through the update. Alternatively, the lower of the NSPS rates for the respective fuel types and a rate representing the proposed caps in 2010 and 2015 divided by projected 2010 and 2015 total affected unit generation may be used to calculate allowance allocations for new units before they begin receiving allowances through the update. This alternative would ensure that new sources would receive allowances at the same rate as that applied to existing sources and no greater than their proposed NSPS. A State may also choose to distribute allowances from this set-aside through an auction, which could be open to anyone or limited (e.g., only new sources could participate). We ask for comment on these various proposals, and for any other alternatives

commenters may wish to raise.

In today's proposed example allocation methodology, new units would begin receiving allowances from the set-aside for the control period immediately following the control period in which the new unit commenced commercial operation, based on the unit's actual utilization rates for the preceding control period. States would allocate allowances from the set-aside to all new units in any given year as a group. If there were more allowances requested than in the set-aside, allowances would be distributed on a pro rata basis. Allowance allocations in following years would continue to be based on the prior year's utilization until the new unit is considered an existing unit and is allocated allowances through the State's updating process. This would enable new units to have a good sense of the amount of allowances they would likely receive - in proportion to their generation. This methodology would not provide allowances to a unit in its first year of operation; however this methodology is straightforward and predictable.

As an alternative, States could distribute a new source set-aside for a control period based on full utilization rates. Then, at the end of the year, the actual allowance allocation would be adjusted to account for actual unit utilization/output, and excess allowances would be returned

and redistributed, first taking into account new unit requests that were not able to be addressed. This was the example methodology used in the NOx SIP Call model rule. In implementing the NOx SIP Call, EPA found this approach to be complicated for both the States and the Agency in implementing the procedure, as well as to the sources as this approach introduces a higher level of uncertainty in the allocation process than may be necessary.

With either approach, any unused set-aside allowances could be redistributed to existing units based on their existing allocations. The EPA is soliciting comment on the timing and method of allocating allowances from the set aside in the example methodology.

While EPA recognizes States' flexibility in choosing their NOx allocations method and is proposing that States be allowed to determine their own method for allocating allowances to sources in their State, EPA is also asking for comment on all aspects of this example allocation proposal and whether the proposed regulatory language, which codifies the above example as proposed in today's SNPR, could reflect a different approach.

The EPA is also soliciting comment on alternate allocation methods.

b. Individual unit opt-in. In today's SNPR, EPA is

soliciting comment on whether opt-in provisions (i.e., provisions that allow units that otherwise would not be subject to the proposed CAIR to individually elect, or "opt," to participate in the proposed CAIR cap-and-trade programs) should be included in the final CAIR rule.

Further, EPA provides and solicits comment on an example opt-in approach that could be included in the final CAIR model rules. If opt-in provisions are included in final model rules, States would not be required to include them, and both States with and without opt-in provisions could participate in the EPA-managed cap-and-trade programs. States that chose to include opt-ins would be required to adopt EPA's methodology for including opt-ins as is.

Description of Potential Opt-In Approach

Opt-ins would be restricted to boilers and turbines that (1) exhaust to a stack or duct, and (2) meet the same monitoring and reporting requirements as CAIR-affected units. These requirements ensure the consistent, rigorous monitoring and reporting required to maintain the integrity of the emissions cap and trading market. To establish baseline emissions and operating information, opt-in units would be required to monitor and report in accordance with part 75 for a minimum of one full calendar year prior to the unit entering the CAIR trading program. If 3 or more

consecutive calendar years of part 75 quality assured emissions and heat input data are available, then an average of the most recent 3 calendar years would be used to establish the baselines.

If a unit chooses to opt-in, the unit is required to opt into both the SO₂ and NO_x cap-and-trade programs. By requiring units to opt-in for both SO₂ and NO_x, opt-in units are encouraged to develop integrated control strategies. In addition, the burden of including opt-in units in the cap-and-trade programs could be somewhat offset by the benefit of both SO₂ and NO_x emission reductions.

Opt-in units would be allocated SO₂ and NO_x allowances on a year-by-year basis. The annual updating of allocations based upon utilization reduces concerns that individual opt-in units may shift utilization and, therefore, emissions, to other, unaffected units. Opt-in allocations would be based upon (1) an emission rate, and (2) the lesser of the baseline heat-input or the actual heat input measured at the unit for the prior year. For example, the potential SO₂ allocation for an opt-in unit could be calculated by taking (i) the lesser of the unit's actual heat-input for the prior year or the unit's annual average baseline heat input for the most recent 3 years for which part 75 quality-assured data are available (or, if 3 years of such data are not

available, the one year prior to opting into the CAIR programs) and multiplying it by (ii) the lesser of the unit's baseline SO₂ emissions rate, the most stringent State or Federal SO₂ emissions limitation that applies to the unit during the calendar year prior to the year in which the unit is being allocated allowances, or the emission rate representing 50 percent of the unit's baseline SO₂ emission rate (in lb/mmBtu) for the years 2010 through 2014 and 35 percent of the unit's baseline SO₂ emission rate (in lb/mmBtu) for 2015 and beyond. The EPA takes comment on this approach and specifically solicits comment on allocating to opt-in units at a range of 20 to 65 percent below their baseline SO₂ emission rates - the equivalent of multiplying the baseline emission rate in the above equation by 80 to 35 percent of their baseline emissions, respectively. The NO_x allocation for an opt-in unit could be calculated by taking (i) the lesser of the unit's actual heat-input for the prior year or the unit's annual average baseline heat input for the most recent 3 years for which part 75 quality assured data is available or, if 3 years of such data are not available, the one year prior to opting into the CAIR program and multiplying it by (ii) the lesser of the unit's baseline NO_x emission rate, the most stringent State or Federal NO_x emissions limitation that applies to

the opt-in unit at any time during the calendar year prior to opting into the CAIR program, or 0.15 lb/mmBtu for the years 2010 through 2014, and 0.11 lb/mmBtu for the years 2015 and beyond (these rates are based on the average emission rates at which EPA projects EGUs will be emitting). The EPA is taking comment on this approach and specifically solicits comment on allocating to opt-in units at a range of levels that are 20 to 65 percent below their baseline NO_x emissions, where an emissions rate of 0.11 lb NO_x/mmBtu is roughly equivalent to a 65 percent reduction.

States would need to notify EPA after the end of the calendar year in order to allocate SO₂ and NO_x allowances to an opt-in unit for the next calendar year. Because opt-in allocations would be based upon data developed for the previous year, the allocations would be distributed a few months after the beginning of the next year (e.g., by April 1 of the next year, which would be of the year for which the allowances are needed for compliance).

Non-EGU boilers and turbines under the NO_x SIP Call that choose to opt-in to the CAIR cap-and-trade programs would still be required to meet the NO_x SIP Call seasonal NO_x limitations. (The EPA does not have modeling, similar to that for EGUs, that projects that if non-EGUs meet the annual NO_x emission limits, they will also meet the ozone

season NOx emission limit as well.) This requirement would ensure that the NOx SIP Call States continue to meet their summertime NOx emission limits and make progress toward attaining the ozone NAAQS.

Opt-in units must remain in the CAIR program for at least 5 years. This would improve the cost effectiveness of implementing the program and would avoid potential incentives for opting in and out of the program. An opt-in unit could withdraw from the CAIR program any time with the request being effective on December 31 following the submission of the request or a subsequent December 31. The EPA believes that the administrative burden for a permitting authority in processing a withdrawal effective during a calendar year - particularly in ascertaining the disposition of SO₂ and NO_x allowances and in determining compliance for a partial calendar year - would be sufficient to warrant the prohibition of an effective date of withdrawal during a calendar year. Further, EPA believes that an opt-in unit should not be allowed to withdraw retroactively, whether during a calendar year or at the end of a prior calendar year. The ability to withdraw retroactively could reduce the incentive to comply since an opt-in unit could simply withdraw once it projects that it will not hold enough SO₂ and/or NO_x allowances to account for its SO₂ and/or NO_x

emissions for that calendar year. At best, under such a scenario, there would be no benefit from allowing the opt-in of the unit. Under an alternate scenario, allowing the unit to "opt out" of the program during a calendar year could result in higher overall SO₂ and/or NO_x emissions, since an opt-in unit could reduce its emissions during part of the year, sell some of its allowances, and increase its emissions after withdrawing from the program. Such increased emissions would not be accounted for with the requisite surrender of SO₂ and/or NO_x allowances required under the CAIR cap-and-trade programs and could occur outside of a State's annual budget for SO₂ and/or NO_x. The opt-in unit could, in effect, shift utilization from the part of the year for which it must surrender allowances for emissions to the part of the year for which emissions do not require an allowance surrender.

Opt-in permits would be terminated for any unit that becomes a CAIR-affected unit. This change in regulatory status for an opt-in unit could occur as a result of a modification or reconstruction that may take place at the unit. An opt-in unit that becomes a CAIR-affected unit would be required to notify the permitting authority within 30 days of the change in regulatory status. The permitting authority should revise the opt-in permit to reflect the

CAIR permit content requirements of subparts CC and CCC (for NO_x and SO₂, respectively), effective as of the date of the change in status. The SO₂ and NO_x allowances would be deducted or allocated as necessary to ensure that the appropriate number of allowances are allocated to the unit consistent with the proposed CAIR trading rules for each calendar year after the effective date of the change in status.

4. Structure of Proposed CAIR Model Trading Rules

In order to make the proposed CAIR NO_x and SO₂ model trading rules as simple and consistent as possible, EPA designed them to parallel the model trading rules of the NO_x SIP Call (part 96) and the Federal NO_x Budget Trading Program (part 97). Because EPA is proposing new CAIR NO_x and SO₂ model rules - separate from the existing model rule in part 96 - States can continue to reference part 96 as they implement the NO_x SIP Call through 2009. The new CAIR NO_x and SO₂ model rules use the same basic structure as part 96 and will allow for an easier transition to the CAIR rules as States and sources will already be familiar with the rule layout. Specifically, the model rules will be codified as follows:

- NO_x SIP Call model cap-and-trade rule will remain in part 96 subparts A through J;

- CAIR NO_x model cap-and-trade rule will be created in part 96 subparts AA through HH;
- CAIR SO₂ model cap-and-trade rule will be created in part 96 subparts AAA through HHH;

In addition, today's SNPR will add and reserve subparts between those proposed in today's action (i.e., subparts K through Z, subparts II through ZZ, and subparts III through ZZZ). Both the CAIR NO_x and SO₂ model rules will rely upon the detailed unit-level emissions monitoring and reporting procedures of part 75. (Note that proposed regulations establishing SIP requirements under the CAIR, i.e., part 51, are discussed in section III of today's action.) Additionally, section III of today's SNPR proposes revisions to part 72 through 77 in order to, among other things, harmonize the title IV Acid Rain Program's SO₂ cap-and-trade provisions with those of the proposed CAIR.

B. Elements of the Proposed NO_x and SO₂ Model Trading Rules, Subparts AA through HH and AAA through HHH

This section of today's SNPR describes the purpose of each subpart of the proposed NO_x and SO₂ model trading rules in parallel. The descriptions highlight any improvements relative to corresponding sections in the existing part 96 (NO_x SIP Call) and part 97 (Federal NO_x Budget Trading Program) model rules. In addition, each subsection notes

provisions that have been specifically adapted for either the CAIR SO₂ or NO_x trading program.

**1. Subparts AA and AAA, CAIR NO_x and SO₂ Trading Program
Applicability and General Provisions**

a. 96.101 and 96.201 purpose.

This section states the reason for the regulation.

**b. 96.102 and 202 Definitions and 96.103 and 96.203
measurements, abbreviations, and acronyms.**

Many of the definitions, measurements, abbreviations, and acronyms remain unchanged from those used in 40 CFR parts 96 and 97, in order to maintain consistency among programs. However, certain terms that are specific to the CAIR SO₂ and NO_x model cap-and-trade rule have been added and certain other terms have been modified.

In today's supplemental proposal of the model SO₂ cap-and-trade rule, EPA has defined CAIR SO₂ allowances to reflect the SO₂ retirement ratios described in section VIII.B.2.f (69 FR 6932) of the January 2004 proposal. Specifically, the definition established the number of title IV or CAIR SO₂ allowances, by vintage, that must be retired to offset one ton of SO₂ emissions. Specifically, one SO₂ allowance of vintage years 2009 and earlier authorizes the emission of one ton of SO₂. Two SO₂ allowances of vintage years 2010 - 2014 authorize one ton of SO₂ emission. Three

SO₂ allowances of vintage years 2015 and beyond authorizes the emission of one ton of SO₂.

In today's SNPR, EPA is clarifying the definition of cogeneration unit included in the January 2004 proposal. (This clarification also corrects an error in the January 2004 proposal, where it was erroneously stated that the definition of a cogeneration facility under the title IV Acid Rain Program and the NO_x SIP Call was based on the Federal Energy Regulatory Commission's qualifying cogeneration facility definition.) The EPA proposes to use a definition of cogeneration unit that is based on the Acid Rain Program definition of "cogeneration unit" and the Federal Energy Regulatory Commission's (FERC) definitions of "cogeneration unit" and "qualifying cogeneration facility." The proposed "cogeneration unit" has two elements. First, in order to be a "cogeneration unit," a unit must produce electric energy and useful thermal energy for industrial, commercial, heating or cooling purposes, through the sequential use of original fuel energy. See 40 CFR 72.2 and 18 CFR 292.202(c) ("cogeneration" definition). Second, the unit must meet the operating and efficiency standards under 18 CFR 292.205, but applied to all cogeneration units, instead of applying the efficiency standards only to oil- and gas-fired units as under 18 CFR 292.205. The EPA

believes that applying the operating and efficiency standards to all units would be more consistent with its fuel-neutral approach throughout this proposed rule. In addition, not applying the efficiency standards to coal-fired units would be counter-productive to EPA's efforts to reduce SO₂ and NO_x emissions under this proposed rule because of the relatively high SO₂ and NO_x emissions from coal-fired units. Thus, under the second element of today's proposed "cogeneration unit" definition, a topping-cycle cogeneration unit must meet the following requirements.

The useful thermal energy output of the unit must be no less than 5 percent of the total energy output during the 12-month period beginning with the date the unit first produces electric energy and any subsequent calendar year. The useful power output of the unit plus one-half the useful thermal energy output, during the 12-month period beginning with the date the unit first produces electric energy, and any calendar year after the year in which the unit first produces electric energy, must be: (i) no less than 42.5 percent of the total energy input to the unit; or (ii) if the useful thermal energy output is less than 15 percent of the total energy output of the unit, no less than 45 percent of the total energy input to the unit.

For bottoming-cycle cogeneration units, the useful power output of the unit during the 12-month period beginning with the date the unit first produces electric energy, and any subsequent calendar, must be no less than 45 percent of the energy input.

c. 96.104 and 204 Applicability. Today's SNPR proposes to affect fossil fuel-fired boilers and turbines serving an electrical generator with a nameplate capacity exceeding 25MW and producing power for sale. Cogeneration units would be affected if they meet the definition in b. above.

d. 96.105 and 205 Retired unit exemption. This section of today's SNPR provides an exemption from the CAIR NO_x and SO₂ trading program requirements for retired units so that retired CAIR units will be free from unnecessary requirements (e.g., emissions monitoring and reporting). The EPA proposes an exemption beginning on the day the unit permanently retires, requiring no notice and comment period regarding the retirement. This provision proposes that the CAIR Designated Representative (CAIR DR)(i.e., the person authorized by the owners and operators to make submissions and handle other matters) submit notification to the permitting authority of the CAIR unit's retirement within 30 days of the cessation of activity. (Note that the CAIR DR designation is similar to the title IV Acid Rain Program's

Designated Representative, or "Acid Rain DR," and the NOx SIP Call's Authorized Account Representative, or "AAR.") In response, the permitting authority would amend the operating permit in accordance with the exemption and notify EPA of the unit's status as exempt. This provision imposes conditions that all program requirements prior to the exemption are fulfilled and records are kept on site to verify the non-emitting status of the retired unit. A retired unit could continue to hold NOx and SO2 allowances previously allocated or be allocated NOx and SO2 allowances in the future depending on the allocation provisions adopted by the State where the retired unit is located. The number of future year NOx and SO2 allowances that a retired unit would be allocated would be dependent on the given State's allocation system. The NOx and SO2 allowance allocations are discussed in sections IV.A.3.a and IV.B.5 of this SNPR.

In order to resume operation without violating program requirements (i.e., an exemption requires that the unit's permit language be changed to reflect that it would not emit any NOx and SO2 emissions), the CAIR DR must submit a permit application to the permitting authority no less than 18 months (or less, if so specified by the applicable State permitting regulations) prior to the date on which the unit is to resume operation, to allow the permitting authority

time to review and approve the application for the unit's re-entry into the program. If a retired unit resumes operation, EPA proposes to automatically terminate the exemption under this part.

e. 96.106 and 96.206 Standard requirements. Today's SNPR delineates the standard requirements that CAIR units and their owners, operators, and CAIR DRs must meet under the CAIR NO_x and SO₂ cap-and-trade program. This provision sets forth references to other portions of the cap-and-trade rule for the full range of program requirements: permits, monitoring, NO_x and SO₂ emissions limitations, excess emissions, recordkeeping and reporting, liability, and effect on other authorities. For example, the permitting, monitoring, and emissions limit requirements are discussed in general and the relevant sections of the cap-and-trade rule are cited. The liability provisions state that the requirements of the trading program must be met, and any knowing violations or false statements are subject to enforcement under the applicable State or Federal law. Violations and the associated liability are established on a facility-wide basis. The provision addressing the effect on other authorities establishes that no provision of the trading program can be construed to exempt the owners or operators of a CAIR source from compliance with any other

provision of the applicable SIP, any federally enforceable permit, or the CAA. This provision ensures, for example, that a State may set a binding source-specific NO_x and SO₂ limitation and, regardless of how many allowances a CAIR source holds under the trading program, the emissions limit established in the SIP cannot be violated.

Automatic penalties for non-compliance have been key to the success of the title IV and the NO_x SIP Call's cap-and-trade programs and are an important feature of the proposed CAIR model rules as well. Simple, transparent, automatic penalties avoid litigation, which can be costly for both the air authorities and the sources, for most non-compliance instances. For severe non-compliance, the air authorities retain the right to pursue civil actions.

f. 96.107 and 207 Computation of time. This section clarifies how to determine the deadlines referenced in the proposal. For example, deadlines falling on a weekend or holiday are extended to the next business day. These are the same computation-of-time provisions as are in the regulation for the title IV and the NO_x SIP Call emissions trading programs.

2. Subparts BB and BBB, CAIR Designated Representative for CAIR Sources

Sections 96.108 and 96.208 of today's SNPR establish

procedures for appealing the decisions of the Administrator regarding the model cap-and-trade rules in part 78. Part 78 also includes administrative appeal procedures for the Acid Rain Program and the Federal NO_x Budget Trading Program.

Today's SNPR revises part 78 to make these procedures applicable to the CAIR NO_x and SO₂ trading programs as well.

Sections 96.110 through 96.114 and 96.210 and 96.214 of today's proposed CAIR NO_x and SO₂ cap-and-trade programs rule establish the process for certifying the CAIR DR and describe his or her duties. Patterned after the roles and responsibilities of the title IV Acid Rain Program's DR, a CAIR DR is the individual authorized to represent the owners and operators of each CAIR NO_x and SO₂ unit at a CAIR source (i.e., a facility that includes at least one CAIR affected unit) in matters pertaining to the CAIR cap-and-trade programs. Because the CAIR DR represents the owners and operators of all the CAIR NO_x and SO₂ units at a CAIR source, the CAIR DR must certify that he or she was selected by an agreement binding on all such owners and operators and is authorized to act on their behalf. The CAIR DR's responsibilities include: the submission of permit applications to the permitting authority, submission of monitoring plans and certification applications, holding and transferring CAIR allowances, and submission of emissions

data. The rule proposes that each CAIR source have one DR that is responsible for both the NO_x and SO₂ cap-and-trade program requirements. Additionally, the rule proposes to require that the CAIR DR be the same individual as the title IV Acid Rain Program's Designated Representative (Acid Rain DR) at each source. These requirements will ensure that one individual is responsible for all matters pertaining to the CAIR as well as significantly reduce the burden on the data systems used in the administration of the cap-and-trade programs.

The EPA recognizes that the CAIR DR cannot always be available to perform his or her duties. Therefore, the rule proposes to allow for the appointment of one alternate CAIR DR for a CAIR source. The alternate CAIR DR would have the same authority and responsibilities as the CAIR DR. Therefore, unless expressly provided to the contrary, whenever the term "CAIR Designated Representative" is used in the rule, it should be read to apply to the alternate CAIR DR as well. While the alternate CAIR DR would have full authority to act on behalf of the CAIR DR, all correspondence from EPA, including reports, would be sent only to the CAIR DR. It should be noted that additional flexibility is provided within the electronic data systems that EPA uses to administer the program. Within these

systems the CAIR DR may assign "agents" to perform specific tasks on his or her behalf, such as submission of allowance transfers and electronic data reports.

Today's SNPR requires the completion and submission of the Certificate of Representation in order to certify a CAIR DR for a CAIR source and all CAIR NO_x and SO₂ units at the source. There would be one standard form (the Certificate of Representation [DR form]) which would be submitted by sources to EPA. The DR form would include identifying information for the source, the CAIR DR and the alternate CAIR DR, if applicable; the name of every owner and operator of the source and each CAIR unit at the source; and certification language and signature of the CAIR DR and alternate, if applicable. The EPA would design this form to also include the Acid Rain DR certifications, and the CAIR DR would indicate which units at the source are included in which programs. This form can also be completed and submitted electronically. Upon receipt of a complete DR form, EPA would establish a compliance account for each source in the systems used to track SO₂ and NO_x allowances.

In order to change the CAIR DR, alternate CAIR DR, or list of owners and operators, EPA is proposing that a new complete account certificate of representation be submitted. The EPA believes the CAIR DR requirements afford the

regulated community with flexibility, while ensuring source accountability and simplifying the administration of the cap-and-trade program.

3. Subparts CC and CCC, CAIR Permits

a. 96.120 and 96.220 General CAIR NO_x and SO₂ trading

program permit requirements. The EPA has attempted to minimize the number of new procedural requirements for CAIR permitting and to defer, whenever possible, to the permitting programs already established by the permitting authority. The proposed CAIR trading program regulations assume that the CAIR permit would be a portion of a federally enforceable permit issued to the CAIR source and administered through permitting vehicles such as operating permits programs established under title V of the CAA and 40 CFR part 70. Generally, the permits regulations promulgated by the permitting authority cover: permit application, permit application shield, permit duration, permit shield, permit issuance, permit revision and reopening, public participation, and State and EPA review. The proposed CAIR trading program permit regulations generally require use of the procedures under these other regulations and add some requirements such as CAIR permit application submission and renewal deadlines, CAIR permit application information requirements and permit content, and the term "CAIR permit".

The term "CAIR permit" throughout this preamble and the CAIR trading program regulations therefore refers to the CAIR trading program portion of the permit issued by the permitting authority to a CAIR source.

b. 96.121 and 96.221 Submission requirements for CAIR NOx

and SO2 permit applications. The proposed rule sets the initial CAIR permit application deadlines for units in operation before January 1, 2007 so that the permits will be issued by January 1, 2010. January 1, 2010 is the beginning of the first control period for the CAIR cap-and-trade program, and therefore also the date by which initial CAIR permits for existing units should be effective. Application submission deadlines are based on the permitting authority's title V permitting regulations. For instance, if a permitting authority's permitting regulations allowed 12 months for final action by the permitting authority on a permit application, the application deadline would be the later of January 1, 2009 (12 months prior to January 1, 2010) or 12 months before the unit commences operation. The same principle applies to CAIR units commencing operation on or after January 1, 2007, except that the application submission deadline is the later of the date the CAIR unit commences operation or January 1, 2010. The CAIR permit renewal application deadlines are the same as those that

apply to permit renewal applications in general for sources under Title V. For instance, if a permitting authority requires submission of a Title V permit renewal application by a date which is 12 months in advance of a title V permit's expiration, the same date would also apply to the CAIR permit application.

c. Sections 96.122 and 96.222, Information requirements for CAIR permit applications and §§96.123 and 96.223 CAIR permit contents and term. The CAIR cap-and-trade program requires that a CAIR permit application properly identify the source and include the standard requirements under proposed sections §§96.121 and 96.221. The CAIR cap-and-trade program permit application should include all elements of the program (including the standard requirements). Such an approach allows the permitting authority to incorporate virtually all of the applicable CAIR cap-and-trade program requirements into a CAIR permit by including as part of such permit the CAIR permit application submitted by the source. Directly incorporating the CAIR permit application into the CAIR permit and, thus, into the source's operating permit or the overarching permit minimizes the administrative burden on the permitting authority of including the CAIR cap-and-trade program applicable requirements. The permitting authority may revise the term of the CAIR permit as

necessary to facilitate coordination of the renewal with the issuance, revision, or renewal of the sources title V permit.

d. Sections 96.124 and 96.224, CAIR permit revisions. For revisions to the CAIR permit, the CAIR trading program again defers to the regulations addressing permits revisions promulgated by the permitting authority under title V and 40 CFR part 70 or 71. The proposal also provides that the allocation, transfer, or deduction of allowances is automatically incorporated in the CAIR permit, and does not require a permit revision or reopening by the permitting authority. The CAIR permit must, however, expressly state that each source must hold enough allowances to account for emissions by the allowance transfer deadline for each control period. The EPA believes that requiring the permitting authority to revise or reopen a CAIR permit each time a CAIR allowance allocation, transfer, or deduction is made would be burdensome and unnecessary.

4. Subpart DD and DDD, CAIR Compliance Certification

Sections 96.130 through 96.131 and 96.230 through 96.231 are reserved. The NO_x and SO₂ cap-and-trade programs in today's SNPR do not include the requirement for the source to submit a compliance certification report. The requirements are unnecessary because these sources already

certify compliance with the emissions monitoring and reporting requirements when they submit their quarterly emissions data. In addition, these sources will submit compliance certifications under title V for all CAA requirements, including the CAIR, NOx SIP Call, and Acid Rain trading programs.

5. Subpart EE and EEE, CAIR NOx and SO2 Allowance Allocations.

Sections 96.140 through 96.142 of today's SNPR propose both required provisions (i.e., State-by-State NOx emissions budgets and the timing for States to report unit-by-unit NOx allocations) as well as the example allocation approach, provided as an illustration. Specifically, sections 96.140 and 96.240 propose the State-by-State NOx emission budgets that may be allocated by the State. Section 96.141 proposes elements of the NOx allocation systems that States are required to include (i.e., a 3 year minimum for advanced notification by the State of allocations and the annual timing of submitting to EPA the updated, unit-by-unit allocations) in order to ensure consistency for sources across all States participating in the EPA-managed cap-and-trade program. Section 96.142 proposes provisions that would implement the example approach for the NOx cap-and-trade program - discussed in detail in above, including

procedures for creating a new unit set-aside and incorporating new units into a permanent allocation.

Sections 96.240 through 242, pertaining to the CAIR SO₂ cap-and-trade program, are reserved. The title IV SO₂ allowance allocation provisions of the CAA remain in effect. Should the final CAIR program make CAIR SO₂ allowances available to the States, EPA would include requirements for a 3 year minimum for advanced notification for unit-by-unit allocations that would be similar to those proposed for NO_x allocations in today's action.

6. Subpart FF and FFF, CAIR NO_x and SO₂ Allowance Tracking Systems.

a. Overview of tracking system. Sections 96.150 through 96.157 and 96.250 through 96.257 of today's proposed model rule cover the system to track CAIR NO_x and SO₂ allowances. The proposed rule is intended to make use of the allowance tracking systems developed for the NO_x SIP Call and Acid Rain Program, with some modifications. Such an approach would help to allow the integration of the CAIR NO_x and SO₂ cap-and-trade programs with the existing cap-and-trade programs under the NO_x SIP Call and Acid Rain Program. It would also save industry and government the time and resources necessary to develop new tracking systems.

The current automated systems will be used to track

CAIR NO_x and SO₂ allowances held by CAIR sources under the CAIR NO_x and SO₂ cap-and-trade programs, as well as those allowances held by other organizations or individuals. Specifically, the systems would track the allocation of all CAIR NO_x and SO₂ allowances, holdings of CAIR NO_x and SO₂ allowances in accounts, deduction of CAIR NO_x and SO₂ allowances for compliance purposes, and transfers between accounts. The primary role of the tracking system is to provide an efficient, transparent, and automated means of monitoring compliance with the CAIR NO_x and SO₂ cap-and-trade programs. It would also provide the allowance market with a record of ownership of allowances, dates of allowance transfers, buyer and seller information, and the serial numbers of allowances transferred.

The EPA is proposing that the tracking system contain two primary types of accounts: compliance accounts and general accounts. The EPA is proposing that compliance accounts for NO_x and SO₂ be created for each CAIR source with one or more CAIR units, upon receipt of the Certificate of Representation form. General accounts are created for any organization or individual upon receipt of a General Account Information form.

b. Establishment of accounts.

i. Compliance accounts. The EPA is proposing to require

source-level accounts for compliance with the CAIR NO_x and SO₂ cap-and-trade programs. The EPA's experience in conducting compliance determinations (reconciliation) for the Acid Rain cap-and-trade program at strictly the unit level indicates that there is the potential for affected facilities to be subject to monetary penalties simply for having too few allowances in one unit account at a source when there are plenty of available allowances at another unit account at the same source. This amounts to a monetary penalty, potentially large, for an accounting error that has no significant environmental effect. In developing the compliance procedures for the NO_x SIP Call cap-and-trade programs, this was taken into consideration and overdraft accounts were introduced to provide some flexibility in managing allowances at a source. However, both EPA and the regulated community find that, in practice, overdraft accounts and their use can be quite complicated and do not significantly reduce the burden of unit-level accounting. Therefore, EPA is proposing compliance accounts be established at the source level. This will significantly reduce the accounting burden for both EPA and the regulated community without causing any environmental consequences. The source-level accounts would be identified by a account number incorporating the source's Office of Regulatory

Information System's (ORIS) code or facility identification number.

Today's SNPR also modifies the Acid Rain Program regulations to provide for source-level compliance. This will facilitate the interaction of the Acid Rain Program and the CAIR cap-and-trade programs.

ii. General accounts. Today's proposed model rules allow any person or group to open a general account. These accounts would be identified by the "9999" that would compose the first four digits of the account number. Unlike compliance accounts, general accounts cannot be used for compliance but can be used for holding or trading NO_x or SO₂ allowances (e.g., by allowance brokers or owners of multiple CAIR NO_x or SO₂ units or sources). General accounts are currently used for both SO₂ allowances in the Acid Rain Program and NO_x allowances in the NO_x SIP Call cap-and-trade program.

To open a general account, a person or group must complete the standard General Account Information form, which is similar to the Certificate of Representation that precedes the opening of a compliance account. The form must include the name of a natural person who would serve as the NO_x or SO₂ Authorized Account Representative (AAR). The form would include identifying information for the AAR and

alternate AAR (if applicable); the organization name and type, if applicable; the names of all parties with an ownership interest with the respect to the NOx or SO2 allowances in the account; and certification language and signatures of the NOx or SO2 AAR and alternate, if applicable.

Revisions to information regarding an existing general account are made by submitting a new General Account Information form which would be sent to EPA in all cases, whether the form is used to open a new account, or revise information on an existing one. The EPA would notify the NOx or SO2 AAR cited on the application of the establishment of his or her general account or of the registration of requested changes.

c. Recordation of allowance allocations. The NOx allocations for existing units for the first 5 years (2010 - 2014), as prescribed by each State, would be recorded into the CAIR NOx (source-level) compliance accounts prior to the first control period in 2010. Prior to the second control period, in 2011, and each year thereafter, NOx allocations for the new fifth sixth year, as prescribed by each State, would be recorded in each compliance account (e.g., in 2011, year 2016 NOx allowances would be allocated).

Title IV SO2 allowances are allocated and recorded

under the Acid Rain Program so this section of the CAIR SO₂ model cap-and-trade rules is reserved. Should the final CAIR rule make CAIR SO₂ allowances available to States, requirements for the recordation of CAIR SO₂ allowances would be similar to those proposed for NO_x allocations in today's action.

d. Compliance. Once a control period has ended (i.e., December 31) CAIR NO_x and SO₂ sources would have a window of opportunity (i.e., until the allowance transfer deadline of midnight on March 1 following the control period) to evaluate their reported emissions and obtain any additional NO_x or SO₂ allowances they may need to cover the emissions during the year.

NO_x: the compliance requirement would be to hold one NO_x allowance for each ton of NO_x emissions at each CAIR unit at the source. For each ton of NO_x emissions for which the source does not hold an allowance, the excess emissions offset would be a deduction of 3 NO_x allowances allocated for the year after the year in which the excess emissions occur.

SO₂: the compliance requirement would depend upon the vintage of the SO₂ allowance being submitted for compliance. For allowances with vintage years of 2009 and earlier, one SO₂ allowance must be held for each ton of SO₂ emissions.

For allowances for vintage years 2010 - 2014, a source must hold 2 allowances of these vintages for each ton of SO₂ emissions. A source must hold 3 SO₂ allowances of vintage years 2015 and beyond for each ton of SO₂ emissions at the source. For each ton of SO₂ emissions for which the source does not hold the requisite number of SO₂ allowances, the excess emissions offset would deduct three times the number of SO₂ allowances required for the sources emissions for the vintage year immediately following the year in which the excess emissions occurred. This would result in six 2010 - 2014 vintage year allowances and nine 2015 and beyond year allowances, since two 2010 - 2014 allowances or three 2015 and beyond allowances authorize one tone of SO₂ emissions.

The EPA believes that it is important to include this automatic offset deduction because it ensures that non-compliance with the NO_x and SO₂ emission limitations of this part is a more expensive option than controlling emissions. The EPA required an automatic deduction of 3-for-1 in the NO_x SIP Call, and is taking comment on the ratios used in the proposed model rules. The automatic offset provisions do not limit the ability of the permitting authority or EPA to take enforcement action under State law or the CAA.

In the Acid Rain Program, one SO₂ allowance must be

held for each ton of SO₂ emissions. As discussed above, one, two, or three SO₂ allowances must be held for each ton of emissions, depending on the year for which the allowances were allocated. Consequently, non-compliance with the allowance-holding requirement in the CAIR SO₂ cap-and-trade program would not necessarily mean non-compliance with the allowance-holding requirement in the Acid Rain Program. Therefore, it is necessary to ensure that compliance with the Acid Rain Program allowance-holding requirements is assessed independently from the CAIR requirements. The EPA is proposing a detailed allowance deduction order for each CAIR unit at each CAIR source where one allowance for each ton of emissions is deducted first (satisfying the Acid Rain requirement) and then the additional allowances are deducted to complete the CAIR SO₂ requirement.

e. Banking. Banking is the retention of unused allowances from one control period for use in a later control period. Banking allows sources to create reductions beyond required levels and "bank" the unused allowances for use later. The EPA is proposing that banking of allowances after the start of the CAIR NO_x and SO₂ cap-and-trade programs be allowed with no restriction. Banking after a program starts and the budget is imposed allows sources to retain any allowances not surrendered for compliance at the end of each control

period. Once the CAIR cap-and-trade program budgets are in place, sources may over-control for one or more years and withdraw from the bank in one or more later years. This type of banking provides the following advantages: encourages early reductions, stimulates the market, and provides flexibility to sources, while also potentially causing NO_x or SO₂ emissions in some control periods to be greater than the allowances allocated for those years.

Allowing unrestricted banking is consistent with the current Acid Rain Program for SO₂. The NO_x SIP Call cap-and-trade program, however, has some restrictions on the use of banked allowances, a procedure called flow control. Flow control was first used in the OTC NO_x cap-and-trade program and was carried over into the NO_x SIP Call cap-and-trade program. The flow control provisions were designed to discourage extensive use of banked allowances in a particular ozone season. Flow control establishes a 2-to-1 discount ratio on the use of banked allowances above a certain level. The discount ratio applies after the total number of banked allowances from all sources exceeds 10 percent of the regionwide NO_x emissions budget. Flow control is a very complicated procedure to explain, understand, and implement. The experience in the OTC cap-and-trade program illustrated that flow control can cause

allowance market complexity and confusion for the regulated community by stratifying the allowance market by vintages (i.e., the year for which the allowances are allocated), making banked allowances less valuable, and potentially increasing the cost of compliance. In addition to these negative effects, it remains difficult to ascertain an environmental benefit. The EPA is proposing to not use flow control in order to keep compliance with the CAIR cap-and-trade programs as simple and easy as possible.

7. Subparts GG and GGG, CAIR NO_x and SO₂ Allowance

Transfers

The EPA is proposing that once a NO_x or SO₂ DR or AAR is appointed and an account is established, NO_x or SO₂ allowances can be transferred to or from the accounts with the submission of allowance transfer information, either on-line or through the use of an Allowance Transfer form. Transfers can occur between any accounts at any time of year with one exception: transfers of current and past year allowances into and out of compliance accounts are prohibited after the allowance transfer deadline (March 1 following each control period) until EPA completes the annual reconciliation process by deducting the necessary allowances.

For those electing not to transfer allowances on-line,

there would be one standard NO_x and one standard SO₂ Allowance Transfer form. This form would be submitted to the EPA in all cases. The form would generally include: the transferor and transferee allowance account numbers; the transferor's printed name, phone number, signature, and date of signature; and a list of allowances to be transferred, by serial number.

8. Subparts HH and HHH, CAIR NO_x and SO₂ Monitoring and Reporting

Clear, rigorous, and transparent monitoring and reporting of all emissions are the basis for holding sources accountable for their emissions and are essential to the success of any cap-and-trade program. Consistent and accurate measurement of emissions ensures that each allowance actually represents one ton of emissions and that one ton of reported emissions from one source is equivalent to one ton of reported emissions from another source. Similarly, such measurement of emissions ensures that each single allowance (or group of SO₂ allowances, depending upon the SO₂ allowance vintage) represents one ton of emissions, regardless of the source for which it is measured and reported. This establishes the integrity of each allowance, which instills confidence in the underlying market mechanisms that are central to providing sources with

flexibility in achieving compliance. Given the variability in the type, operation, and fuel mix of sources in the proposed CAIR NO_x and SO₂ cap-and-trade programs, EPA believes that emissions must be monitored continuously in order to ensure the precision, reliability, accuracy, and timeliness of emissions data that support a cap-and-trade program. As proposed, part 96 subpart HH for NO_x and subpart HHH for SO₂ establish monitoring and reporting requirements for CAIR sources. These subparts reference the relevant sections of part 75 where the specific procedures and requirements for measuring and reporting NO_x and SO₂ mass emissions are found. These subparts are modeled after subpart H of part 96.

Part 75 was originally developed for the Acid Rain Program. The Acid Rain Program, as established by Congress in the 1990 Amendments to the Act, requires the use of continuous emissions monitoring systems (CEMS) or an alternative monitoring system that is demonstrated to provide information with the same precision, reliability, accuracy, and timeliness as a CEMS. The EPA believes that the use of CEMS is a critical part of ensuring the effectiveness of regional cap-and-trade programs. In implementing the Acid Rain Program, as well as the NO_x SIP Call Trading Program, EPA has allowed alternatives to CEMS

only where the total of the emissions contributed by specified categories of affected sources is *de minimis* in comparison to the emissions cap for the program, or where an alternative monitoring system has been demonstrated, according to specified criteria, to meet the standard Congress set. Provisions for monitoring and reporting NO_x mass emissions were added to Acid Rain Program methodologies for both the OTC NO_x Budget Program and for the NO_x SIP Call. As a result, several alternative monitoring methodologies exist for qualifying sources to use. For example, there is a SO₂ emissions data protocol that allows gas- or oil-fired units to use fuel sampling techniques along with fuel flow metering to quantify emissions. (See part 75, appendix D.) There is also a NO_x estimation methodology for certain infrequently used gas- or oil-fired units that can be found in part 75, appendix E. There are also optional emissions calculation procedures for gas- or oil-fired sources emitting no more than 25 tons of SO₂ annually or less than 100 tons of NO_x annually which allow the use of conservative emission factors to estimate emissions. (See §75.19.) All of the existing part 75 monitoring methodologies will be available to CAIR sources as applicable.

Sources subject to the CAIR must monitor and report NO_x

and SO₂ mass emissions year round. The majority of CAIR sources are measuring and reporting SO₂ mass emissions year round under the Acid Rain Program. Therefore, these sources will have little or no changes to make to their monitoring and reporting efforts under the CAIR. Most CAIR sources are also reporting NO_x mass emissions year round under the NO_x SIP Call. The CAIR-affected Acid Rain sources that are located in States that are not affected by the NO_x SIP Call currently measure and report NO_x emission rates year round, but do not currently report NO_x mass emissions. These sources will need to modify only their reporting practices in order to comply with the proposed CAIR monitoring and reporting requirements. Today's SNPR is designed to be as consistent as possible with existing requirements in order to minimize the impact on CAIR sources of the monitoring and reporting requirements, while maintaining the integrity of the cap-and-trade programs.

The requirement to monitor and the associated monitoring deadlines are found in §96.170 for NO_x and §96.270 for SO₂ for the CAIR trading programs and require continuous measurement of SO₂ and NO_x emissions by all existing affected sources by January 1, 2009 using part 75 certified monitoring methodologies. New sources have separate deadlines based upon the date of commencement of

operation, consistent with the Acid Rain Program.

The quality assurance (QA) requirements for the Acid Rain Program that were mandated by Congress under the CAA have been codified in appendices A and B of part 75. Part 75 specifies that each CEMS must undergo rigorous initial certification testing and periodic quality assurance testing thereafter, including the use of relative accuracy test audits (RATAs) and daily calibrations. A standard set of data validation rules apply to all of the monitoring methodologies. These stringent requirements result in an accurate accounting of the mass emissions from each affected source and provide prompt feedback if the monitoring system is not operating properly. In addition, when the CEMS is not operating properly, standard substitute data procedures are applied and result in a conservative estimate of emissions for the period involved. This ensures a level playing field among the regulated sources with consistent accounting for every ton of emissions and also provides an incentive to keep the monitoring system properly up to date with QA requirements. The NO_x SIP Call trading program also requires part 75 QA procedures. The EPA proposes to require the same QA procedures (as applied to an entire year, not just the ozone season) for the CAIR program. Initial certification or recertification is required as specified in

§§96.171 and 96.271. Recognizing that many of the CAIR units are already monitoring NO_x or SO₂ (sometimes both) under part 75 through existing programs, subparts HH and HHH allow continued use of previously certified CEMS when appropriate rather than automatically requiring recertification. Requirements for reporting data when the monitors do not meet QA specifications are found in §§96.172 and 96.272.

Sections 96.174 and 96.274 specify reporting requirements, which include general requirements, monitoring plan reporting, certification applications, quarterly emissions and operations reports, and compliance certifications. The EPA proposes to require year-round reporting of emissions and monitoring data from each affected unit. As required for the Acid Rain Program and the NO_x SIP Call trading programs, quarterly emissions reports must be submitted to EPA electronically on a quarterly basis and in a format specified by the Agency using EPA-provided software. Many affected sources are already reporting some or all of this data to EPA under either the Acid Rain Program or the NO_x SIP Call trading program and can continue to report that data along with any additional data that may be required by this program. The EPA has found centralized reporting to be necessary to

ensure consistent review, checking, and posting of the emissions and monitoring data for all affected sources, which contributes to the integrity, efficiency, and transparency of the trading program. Another important feature is that sources regulated under the Acid Rain Program, NOx SIP Call, or the CAIR NOx and SO2 cap-and-trade programs must use the same reporting format and submit only one report with all of the information required for all of the applicable programs. Thus, if the same data is needed for multiple programs, the source needs to report it only once in the form of one comprehensive report.

Consistent with the current monitoring and reporting requirements in part 75 for the Acid Rain and the NOx SIP Call programs, the proposed rule would allow sources, §96.175 of subpart HH of part 96 and under §96.275 of subpart HHH of part 96, to petition for an alternative to any of the specified monitoring requirements in the rule. These provisions provide sources with the flexibility to petition to use an alternative monitoring system under subpart E of part 75 or variations of the standard monitoring requirements as long as the requirements of existing §75.66 are met.

Sections 96.176 and 96.276 require heat input data to be measured and reported regardless of the type of

monitoring system.

V. Clarifications to January 30, 2004 Proposal

This section provides clarifications to the January 2004 proposal where the preamble language provided in the published proposal was unclear, incomplete, inadvertently omitted, or inadvertently incorrect. Unless otherwise indicated, all references to the Federal Register - 69 FR 4566-4650 - are to the proposed Interstate Air Quality Rule.

A. Scope of the Proposed Action

On 69 FR 4633 column 1, EPA discussed the NOx cap-and-trade program. Under the heading "States Outside the Proposed Region with Existing Regional NOx Cap-and-trade Programs", EPA mistakenly identified Massachusetts in the list of States that participate in existing NOx trading markets that would *not* be affected by the proposed rules. Massachusetts should be deleted from that list because it would be affected by the proposed rules.

In the January 2004 proposal, we discussed regional control requirements and budgets based on a showing of "significant contribution" by upwind States to nonattainment in other States. (69 FR 4611-4613). CAA section 110(a)(2)(D), which provides the authority for the proposal, states among other things that SIPs must contain adequate provisions prohibiting, consistent with the CAA, sources or

other types of emissions activity within a State from emitting pollutants in amounts that will "contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to" the NAAQS.

Thus, CAA section 110(a)(2)(D) requires that States prohibit emissions that contribute significantly to downwind nonattainment. In the January 2004 proposal, we discussed both the air quality component and the cost-effectiveness component of the "contribute significantly" determination. The EPA has interpreted CAA section 110(a)(2)(D) to require that States reduce emissions by specified amounts, and has based those amounts on the availability of highly cost-effective controls for certain source categories. Following this interpretation, EPA based the January 2004 proposal on the availability of highly cost-effective reductions of SO₂ and NO_x from EGUs in States that meet EPA's proposed inclusion criteria.

We noted in the January 2004 proposal, with respect to the cost-effectiveness component, that one factor we consider in determining cost effectiveness is the identification of source categories which emit relatively large amounts of the relevant emissions. We noted that this element is particularly important in a case such as the proposed CAIR where the Federal government is proposing a

multi-State regional approach to reducing transported pollution. (69 FR 4611).

One approach cited in the January 2004 proposal for ensuring that both the air quality component and the cost effectiveness component of the section 110 "contribute significantly" determination is met, is to consider a source category's contribution to ambient concentrations above the attainment level in all nonattainment areas in affected downwind States. Some have recommended a further refinement of this concept, suggesting that a source category should be included only if the proposed level of additional control of that category would meet a specified threshold. Under this suggested approach, EPA could determine, for example, that inclusion of a source category in a broad multi-State SIP call would be appropriate only if it would result in at least 0.5 percent of U.S. counties and/or parishes in the lower 48 States coming into attainment with a NAAQS. Given the number of counties and parishes in the United States, this requirement would be met if at least 16 counties in the lower 48 States were brought into attainment with a NAAQS as a result of the proposed level of control on a particular source category. Choice of a factor as low as 0.5 percent of U.S. counties and/or parishes reflects the fact, according to this approach, that, for every NAAQS, the vast

majority of counties are already in attainment. Nevertheless, for most criteria pollutants, this figure represents a significant portion of the remaining nonattainment problem.

The EPA seeks comment on whether this test should be incorporated as a part of the "highly cost-effective" component of the "contribute significantly" requirement of CAA section 110(a)(2)(D) when a multi-State call for SIP revisions to address interstate transport of air pollution is at issue. The EPA has conducted air quality modeling of the January 2004 proposal which indicates that the proposed emissions reductions will bring 34 additional areas (from a base of 73 down to 39) into attainment with either the PM_{2.5} or 8-hour ozone NAAQS by 2015. Since there are over 3,000 counties and parishes in the lower 48 States, basing the highly cost-effective control levels in the proposed CAIR on EGUs would meet this 0.5 percent criterion.

States retain authority to decide which sources to control to achieve the required amounts of reductions, but EPA considers the costs of controls for more sources in determining what is a significant contribution. Other CAA mechanisms, such as SIP disapproval authority and State petitions under CAA section 126, are available to address more isolated instances of the interstate transport of

pollutants.

B. Summary of Control Costs

The control cost summary provided on 69 FR 4632 column 2 indicates a marginal cost per ton of SO₂ emissions of \$805 in the first phase, and \$989 in the second phase, of the proposed control program. These amounts were based on modeling performed to evaluate the implications of using retirement ratios to implement the emission reduction requirements of the rule. This modeling is different from the modeling used to evaluate highly cost-effective controls. The latter modeling is summarized in Table VI-1 on 69 FR 4613, and shows marginal costs of \$700 per ton in the first phase, and \$1000 per ton in the second phase.

C. Source of Cost Information

On 69 FR 4614, Table VI-4, EPA failed to include an additional footnote referencing the source of the cost information for the last entry in the table, "Revision of NSPS for New EGUs." The footnote should have indicated that the cost information is derived from "Proposed Revision of Standards of Performance for Nitrogen Oxide Emissions from New Fossil-Fuel Fired Steam Generating Units: Proposed Revisions to Reporting Requirements for Standards of Performance for New Fossil-Fuel Fired Steam Generating Units," 62 FR 36951. The control costs for SCR shown in the

table are for coal-fired utility steam generating units and coal-fired industrial steam generating units. The proposed NSPS revision included ranges of costs; EPA presented the mid-point from those ranges in the table.

D. Judicial Review Under Clean Air Act Section 307

The EPA did not discuss in the January 2004 proposal the applicable provisions for judicial review of CAA section 307. Section 307(b)(1) indicates in which Federal Courts of Appeal petitions of review of final actions by EPA must be filed. This section provides, in part, that petitions for review must be filed in the Court of Appeals for the District of Columbia Circuit if (i) the agency action consists of "nationally applicable regulations promulgated, or final action taken, by the Administrator," or (ii) the agency action is locally or regionally applicable, but "such action is based on a determination of nationwide scope or effect and ... in taking such action the Administrator finds and publishes that such action is based on such a determination."

Any final action related to the CAIR is "nationally applicable" within the meaning of section 307(b)(1). As an initial matter, through this rule, EPA interprets section 110(a)(2)(D)(i) of the CAA in a way that could affect future actions regulating the transport of pollutants. In addition

the January 2004 proposal would require 29 States and the District of Columbia to decrease emissions of either SO₂ or NO_x, or both. The Interstate Air Quality Rule is based on a common core of factual findings and analyses concerning the transport of ozone, PM_{2.5} and their precursors between the different States subject to the Interstate Air Quality Rule. Finally, EPA has established uniform approvability criteria that would be applied to all States subject to the Interstate Air Quality Rule. For these reasons, the Administrator also is determining that any final action regarding the Interstate Air Quality Rule is of nationwide scope and effect for purposes of section 307(b)(1). Thus, any petitions for review of final actions regarding the Interstate Air Quality Rule must be filed in the Court of Appeals for the District of Columbia Circuit within 60 days from the date final action is published in the Federal Register.

VI. Statutory and Executive Order Reviews

This section of the SNPR discusses reviews conducted to meet the requirements of applicable statutes and executive orders. In the January 2004 proposal (69 FR 4566, January 30, 2004), EPA addressed the regulatory requirements that trigger statutory and executive order reviews. This supplemental proposal does not add substantive regulatory

requirements. Rather, in general, it proposes a legal determination that implementation of the model rule will meet the better-than-BART requirements, clarifies aspects of the January 2004 proposal, and adds regulatory text for the proposals in the January 2004 proposal. Therefore, this supplemental proposal does not alter the findings of the January 2004 proposal.

The EPA provides additional information below relating to the National Technology Transfer and Advancement Act. In addition, the EPA plans to conduct additional analyses as discussed in the January 2004 proposal relating to the Paperwork Reduction Act (PRA), the Regulatory Flexibility Act (5 U.S.C. 601 et seq.)(RFA), as amended by the Small Business Regulatory Enforcement Fairness Act (Public Law 104-121) (SBREFA), and the Unfunded Mandates Reform Act of 1995 (Public Law 104-4) (UMRA) in the Notice of Final Rulemaking for this action. The EPA believes the analyses relating to the RFA and UMRA are not required for this rule by statute, but these analyses will be conducted for informational purposes. While it doesn't alter EPA's findings, EPA has performed additional analysis of the impact that the proposed CAIR may have on States not affected by the proposed CAIR. This analysis is available in the docket.

National Technology Transfer Advancement Act. Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Public Law 104-113; 15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

This SNPR would require all sources that participate in the trading program under proposed part 96 to meet the applicable monitoring requirements of part 75. Part 75 already incorporates a number of voluntary consensus standards. Consistent with the Agency's Performance Based Measurement System (PBMS), part 75 sets forth performance criteria that allow the use of alternative methods to the ones set forth in part 75. The PBMS approach is intended to be more flexible and cost effective for the regulated community; it is also intended to encourage innovation in analytical technology and improved data quality. At this

time, EPA is not proposing any revisions to part 75, however EPA periodically revises the test procedures set forth in part 75. When EPA revises the test procedures set forth in part 75 in the future, EPA will address the use of any new voluntary consensus standards that are equivalent.

Currently, even if a test procedure is not set forth in part 75, EPA is not precluding the use of any method, whether it constitutes a voluntary consensus standard or not, as long as it meets the performance criteria specified. However, any alternative methods must be approved through the petition process under §75.66 before they are used under part 75. We welcome comments on this aspect of the proposed rulemaking and, specifically, invite the public to identify potentially applicable voluntary consensus standards and to explain why EPA should use such standards in this regulation.

VII. Proposed Rule Text

This SNPR includes the proposed rule text for the CFR for the basic elements of the CAIR proposal. This rule text includes the requirements for the affected jurisdictions to submit transport SIPs under the PM_{2.5} standard, the 8-hour ozone standard, or both; as well as for implementation of the applicable SO₂ and NO_x emissions budgets. It also includes model rule language that States may adopt for

interstate trading rules. The rule language is located at the end of the preamble.

Specifically, EPA is today proposing to amend or revise the following rule text:

- i) Part 51 subpart A, §§51.1 through 51.45;
- ii) Part 51 subpart G, §§51.122 through 51.125;
- iii) Part 51, §51.308;
- iv) Part 72, §72.2;
- v) Part 73, various §§73.1 through 73.70;
- vi) Part 74, various §§74.18 through 74.50;
- vii) Part 77, various §§77.3 through 77.6;
- viii) Part 78, §§78.1, 78.3, 78.4 and 78.12;
- ix) Part 96, §§96.101 through 96.186 (NO_x trading) and §§96.201 through 96.286 (SO₂ trading).

List of Subjects in 40 CFR Part 51

Environmental Protection, Administrative practice and procedure, Air pollution control, Intergovernmental relations, Nitrogen oxides, Ozone, Particulate matter, Regional haze, Reporting and recordkeeping requirements, Sulfur dioxide.

List of Subjects in 40 CFR Parts 72, 73, 74, 77 and 78

Environmental Protection, Acid rain, Administrative practice and procedure, Air pollution control, Electric utilities, Intergovernmental relations, Nitrogen oxides, Reporting and recordkeeping requirements, Sulfur dioxide.

List of Subjects in 40 CFR Part 96

Environmental Protection, Administrative practice and procedure, Air pollution control, Electric utilities, Nitrogen oxides, Reporting and recordkeeping requirements, Sulfur dioxide.

Dated:

Michael O. Leavitt
Administrator